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The Games machine

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TO FLY!

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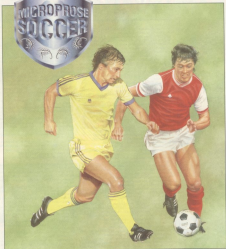
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TGM PREVIEWS

The spice of life

Variety is in for '89, as our selection of new games shows. Licenses weird and wonderful, more simulations from Accolade, a bevy of PC games (at last) and a look at what's new at software houses including Ubi Soft, Logotron and Code Masters - all in TGM Previews.

Boom in games as PC grows popular

The growth of low-cost, high-quality PCs is bringing that traditional business computer into its civilian equivalent - and not surprisingly, simulations are leading the field. After all, PC gaming has long been dominated by American software houses, which tend to favour sports and vehicle games.

For instance, Electronic Arts' premier 3D attack ball for February. Based on American Los Angeles-area info, this takes you through a series of real-life missions around the world, utilising solid realism from pseudo-reality: real intelligence (AI), real-time

there make the behaviour of every enemy different, so each mission is a separate challenge.

Conceptually, 3D attack ball gives a first-person perspective (space-cop included), and digital cars, machines, or jets jump where you tell 'em to.

And for the politically questioning, there's also an option to play it as the commander of a Soviet unit.

Time marches on

For those seeking more mind-boggling entertainment, *Walking Orders* - formerly *Design* - are presenting *Chosen's*



Electronic Arts' 3D attack ball (left) and 3D Attack Ball from Electronic Arts

Where Time Goes (TCM89) to the PC.

The scenario starts on simple enough: a plane crash in the isolated Himalayan mountains leaves a small group stranded. You control the pilot, James, and try to lead the others to safety, through a series of natural hazards (evil, natural if you count bug-eyed monsters as natural).

As our daily simulacrum shows, the PC game (which revised 1978 on Spectrum) is also available on the ST: keeps all that movie-like monochromatic graphic detail, and should make a welcome break from high-powered

military management.

Others are PC titles include *Konosan* (a flying simulation), *Pan-Air* (aerobics from Accolade), and *Operation Hammer* from Again Again. And in America, *InfoSphere* put their own addition to the right: *Advanced PC* - their first release for the machine.

■ If you're looking for ports: PCQ users, with its conversions (all on 1.1-inch disk, of course), the titles are *Commander* (J. White Games), *World Class* (Dynamix), *Lab Rats* (Simulator) and *Impossible Mission* (J. All) are also available for standard PC-compatibles.



Movie-like adventures on the PC: Chosen's *Where Time Goes* (left)

Accolade carry on simulating

Nothing's changing at Accolade - all they've simulated everything else moves. For one traditional from their *DocuSim* believers, the California-based software house, established four years ago by the former founders of Activision, is doing just fine with its mix of sports and vehicle sims.

But "we're running out of space," observes DocuSim, the firm's chief legal officer. "The President of International Product Development, reflecting on a strategy which now includes *SimCity*, *Star* and *Navy* (simulated), the *Millions*, *Fast Break* (basketball) and *P.A.Q.* (hockey) - the title stands for 'technical

simulation'.

And recreating sports on the computer poses problems, too. "In order to simulate," says DocuSim, "you have to replicate the team aspect. But previously from our own testing device," sports games where your team really acted in a group of individuals with brains, rather than an assembly of numbers, sports, would also require huge processing power.

Still, there's always someone to play them - particularly American ones. "They like sports. They go out and hit a ball hard. That shows how good they are too."

One way to prove real standard could be through another driving



Grand Assault: not out of space when there's nothing left to simulate? The *Train Escape* (left) normally, one out on PC.

game. DocuSim won't be drawn into promises, but he says that in 1987 we did *Thunder*, in 1988 we did *Grand Prix Circuit*, it's not

incomprehensible to the another.

Meanwhile, culture. Accolade plans include *Pan-Air* (aerobics) and *The Train Escape* (a normally on the PC), and a 3D tank simulation called *Just* (Pleasant Atmosphere, more than 15 titles are in the works, no doubt including more flight simulations - though "a good one takes forever").

With these, he's depending on simple and quality to carry the day. "You can just not do more games. But we're sure the game will say 'I remember that company'."

After all, Accolade is competing with TV - DocuSim, like many American software houses (and more and more British ones too), runs games as part of mainstream entertainment. "I don't think most people want an interactive experience where they can't learn. You've gotta convince them to get up off their butt."

Licence fever strikes again

A new batch of licensors and publishers of the books are lined up, with licences from Disney to avoid television copyright law for computer editions.

French software house Infogrames plan to put children's adventure games on Amiga and then C64 - indeed, the game may even be out by the time you read this, complete with Disney's long history and its treacherous Captain Jack.

The announcement follows a long period of quiet; there was some excitement about Microsoft's acquisition of the rights to Disney's cartoon characters for a software licence to produce a game. But nothing came of that, and it seems Infogrames have got in first with a French licence - also, all the original Disney came from across the Channel.

Also from France, Colossal Vision promise games of Jules Verne's adventure novel 20,000 leagues under the sea and then Richard Kipling's century classic The Jungle Book.

20,000 leagues under the sea, due out on CPC, Amiga, ST and PC, is an arcade adventure based on Captain Nemo's good - well, bad - ship Nautilus. You're cast as Professor Arctonax, a prisoner of the evil captain, attempting to escape from the Nautilus. Well worth a few quid.

Running into trouble

Back with more conventional licence subjects, Granddaddy Entertainment have licensed the Schwarzenegger movie The Running Man and the television TV puppet drama Thunderbolt.

The Running Man, due for CPC, C64, Spectrum, Amiga, ST and PC, follows the film closely with the



Everyone else will say Granddaddy is G2, so we won't. But they do have the Thunderbolt brand.

story of Ben Richards (Schwarzenegger), a policeman in the year 2019, who works against his mechanised superiors - and it seems to merit his death on a small granddaddy.

Five horizontally-scrolling sections pit the player, as Richards, against an array of guns with broadly manner like football and basketball. Towards the end, a late worse than The Price is Right, and it's out early this year.

Granddaddy go slightly more intellectual in Thunderbolt, featuring the Tucker family in a series of fast-way-scrolling adventures against the ghastly Hissel. If you belong to the club TV about's going to lose, you'll love it, if not, at least it'll make a change from the Thunderbolt's fast-paced action of Star Trek and Granddaddy's Thunderbolt is not on all major formats - in February, and perhaps are expected.



Characters about from Granddaddy, Schwarzenegger movie The Running Man.

And back with the blockbusters again, US Goliath will have the game of adventure movie Indiana Jones And The Last Crusade next autumn, again of their tie-up with US software company Granddaddy have Thunderbolt power.

And finally, River's joining forces with Denmark, only regularly based in the optical TV show. The plot line is standard spring-the-world-here, the difference being that to rescue humanity you've gotta fight and beat on world leaders including Margaret Thatcher, Mikhail Gorbachev and the Pope. We loved the RT version, programmed by William Chivers, expect a revised score.



Against adventure Goliath Vision based 20,000 leagues under the sea on Jules Verne's 1870 science fiction.

When bigger is better...

Size may not be everything, but extra levels and features can expand old games to give them a new lease of life. And that's exactly what's happening with a couple of prizes from Microvare and Power Leisure.

Following the successful ST Dingo Master, which Microvare's commercial subsidiary claim is the



Adding depth to their dingo: 'Dingo Master Back', Microvare's ST Dingo Master supplement.

best-selling ST program of all time at more than 80,000 copies, its extra five levels are being released in January.

Titled Chan Dingo Back, the new levels add more challenges to the end of the game, and the package also features a portrait edition allowing you to change the appearance of on-screen characters. The price isn't fixed yet, but will probably be £14.99.

Football cheats

From January, also costing huge sales (140,000 copies all formats for Football Manager 2, after Football Manager 2 Expansion Kit, which does all the work Experts need to in the old Spectrum days, you can start the game in any division you choose, start with however much money you want, and - valuably - change the number of points you receive for a league win or draw.

The package also includes a set of previously saved games which take you into the Football, French, Italian and World leagues, and how you save and modify your own

games (by changing team names, colours etc). Available in February, Football Manager 2 Expansion Kit is available for CPC, C64, Spectrum, Amiga, ST and PC, 5-6 tapes are £6.99, 8-tape disks £9.99, and 16-bit disks £12.99.

■ For other computer help for 16-bit Dingo Master with Dingo Master's desktop, a utility for C64 (£12.99) and PC, same price expected.

Working from a database of over 5,000 encounters and 1,500 monsters and characters, Dingo Master's desktop can calculate the power given in each encounter, and keep track of the amount, weapons and spells each monster has.

The software can generate random encounters or work on ones you choose; you can also add new monsters to the database.

Low-price 16-bit

Microvare are offering their ST of Amiga games for little over the price of one with 800 Kbit Memory

£24.95, the compilation includes Super Goliath, master-controlled the article adventure Slingshot, traditional shoot-'em-up Goliath and space quest Jupiter Probe.



Ubi Soft go for graphics

"Good evening, this is the Ubi Soft news. The evil genius Xanatos and his hideous skeleton henchmen are attacking the innocent folk of Arctura in a diabolical plot to become Masters of the Galaxy. A single SWAT agent has been dispatched to prevent them and keep the universe free."

Never mind the story line, look



Atari Command (ST screen)

at the graphics — that's the message as the Soft bring out a trio of top-looking games packed with remarkable details.

The agent in our imagines (named) is you in SWAT. Expected February release on ST, with Amiga and C64 following in March.

Even more visually breathtaking is Atari Command, an adventure-style action game which sends you on a work and road mission into a deserted space station, searching both enemies and friends and har-



Placed in space: Ubi Soft's Atari Command (ST screen)

ring for clues. Expected ST and PC-compatible release in February, followed by Amiga and C64 in March.

And there's also Night Hunter, a 30-level arcade adventure with a refreshing change; rather than saving the world, you're the force

of evil. As Ghost Incubus, try a mind-bend destiny — mission against the sacred medallions which keep weapons in bay, turning into a bit of free conversationally a swordswall when necessary.

Each level boasts 20 screens and eight objects, so that's another 600

screens and 240 things to find — enough to keep any player busy from sunrise to sunset. ST release is set for January, with Amiga, PC-compatible, CPC, C64 and Spectrum rising from the grave in March.



Graphic details: Ubi Soft's BAT



Feature vampire: Night Hunter (ST screen)

Logotron enter that extra dimension

Isol'd 3-D plus a solid game theme gave Logotron the idea for Star Blast — they claim it's the first solid 3-D mindless shoot-'em-up!

And in screen programmer's life there's responsibility for ST and Amiga versions of Hirsch's list have lived up to Logotron's demands, giving the game more than 25 different moving objects, nature sounds, exploding in 3-D, and "cosmic house music".

Set for ST release in January and Amiga in February, Star Blast is created by Logotron under the 3-D uni-



vers to Simon, Salamander and B-Tops.

Also in 3-D from Logotron comes Archipelago, a game of evasion and connection that sets you the task of linking 100 scattered islands to vanquish the power of the immortally immortal cosmic Obelisk. When that's completed, the program can generate a new set of islands — 5,000 different ones, altogether.

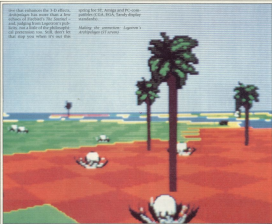
With continuous 3-D movement, a crowd of weird objects and a just-above-the-ground perspec-

ively similar Logotron's Star Blast (ST screen)

line that enhances the 3-D effect, Arripolago has more than a few options of Rayford's (he *knows*) – and, judging from Laporte's publicity, not a hint of the philosophical pretension you, well, don't let that stop you when it's not his

spring for ST, Amiga and PC-compatible (C-Ext, VGA, Sandy display standards).

Making the connection: Laporte's Arripolago (C1 review)



That's not enough storms – Ed

What with E.T. & Storm from US Gold, Hammer's Stormlord and Storm Warrior from Blue, we wondered if it wasn't time someone put a stop to it.

But the storm clouds aren't shifting for a while yet, as two more different releases from Virgin and Creation.

Virgin's Stormbringer, which

should be out soon under ST, is the third in the Magic Knight series which includes Spellbound and Knight Quest. This time around a duplicate Magic Knight has accidentally been created due to technical errors in a time machine, and it's a case of get him before he gets you. But not killing, you understand, because this 'Old White Knight' is part of you, the only solution is to merge with him.

Creation's Stormbringer usually has a standard 16-level, 128-screen arcade adventure involving the usual search for a 'warped physics' – we thought they were all pretty warped at college, actually, but the graphics look smart in a gleaming-metal kinda way, as the screenshot shows. ST release in January, Amiga in February or March.

Another Magic Knight: Virgin's Stormbringer



Activision turn to Nintendo

Activision Video seem to have gone back to their old, pre-Mechanics moniker as apparently looking to console as well as computers with the signing of three games-development firms.

One of the three groups joining Activision in the UK, Motion Picture Films, will be developing Nintendo software as well as generating game concepts for other programmers.

Another new Activision unit, Vivid Images, 'will be developing for both existing and future technologies', according to the official announcement. This system is 'a mix consisting of John Twiddy (Blue Hammer, Last Ninja), graphics man Hugh Biley, and Steve Stone (CPC and Spectrum, Last Ninja 2).

Also signed up are New Frontier Productions, under the direction of David Croomwell, formerly French house integrators' man in the UK.



Surfing smart: Entertainment International's Stormbringer

Sting like a bee

Development house Teque (Toscani, Pac/Rare) has mutated into Chrysalis, a soft-wart house which claims to concentrate on original ideas rather than tie-ins.

First out of Chrysalis comes *Prison 3D* and *Amiga 3D* screen leers, "pure escape entertainment" - and escape in more ways than one, as the object is to escape from a prison planet by locating a hidden spaceship through clues.

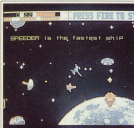
Programmed by Michael Ratti (left) and James Wilson (right), it looks to us like a string of traditional games, with effective graphics.



These Code Masters just won't sit still - not content with the Code Masters Plus range and a full-price label, they're now turning their attention to 16-bit.

But even though they're not called simulators, the themes are still the same, with *Advanced Rugby 3D* screen and *Advanced Ski* (Amiga screen) looking almost as familiar as *Glory*.





Microsoft's Imageworks label was launched last autumn (see PCWORLD 10/90) with the promise of more than just cut-up adventures — but they're made an exception for *Asteroids*, a conversion from Atari Game's arcade original.

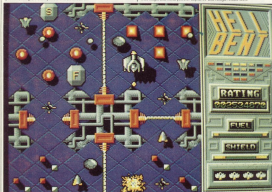
And Imageworks are emphasizing the faithful approach of *Trigon*, the conversion from *Tron* to new format *Chrysalis* — or the Prince picture elsewhere in these pages. The graphics have been taken directly from the cut-up's program, they say.

This is an early example. *Asteroids* is also the release on CPC, C64, M68K, Spectrum, Amiga, PC-compatible and ST in March.



Asteroids under a hot and lovely ball of grim and threatening space for a labyrinthine story... It's not Microsoft headquarters, though another bonus definitely has its fair share of grim and threatening space.

Asteroids, a view-to-view arcade adventure by Atari (Arkanoid) (Arkanoid) (The Word, Arkanoid) (Word), pits you against the mysterious "smell of death" fighting with magic and mind powers. Expect 17 and Amiga release soon.



Warden up? Stripes like that programmer Paul Warden worked on arcade *Warden*, principal or last September's PC. More — and that that could be the reason for the delay of his long-awaited *Demolition*. But officially, *Warden*

—by *Warden* Prince and graphics artist *Mr. Warden* — is the first *Warden* 16-bit game not from Warden. It should be out soon on ST and Amiga.

TGM REPORT

ATARI GAMES DECLARE WAR

... but console front quiets down despite court case with Nintendo

Observers of the rapidly-changing console scene were shocked last month when no new launches were announced. But things are continuing to move on the front: a classic picture of Konix's *Miphaman* is emerging, and in America a lawsuit has been filed which could finally open the doors to more Nintendo software.

The UK court case between Atari Games and Nintendo has come as a result of Nintendo's tight control of games for their cheap (999-94) and highly successful console. Though independent software houses are allowed to design Nintendo games, they can't be released without approval from the giant company based in Japan.

Nintendo achieve this control by not permitting anyone else to manufacture their cartridges, and by security mechanisms that makes cartridges extremely difficult to produce without access to all Nintendo's technology (known as the ROM lock).

Now Atari Games, who have not been associated with 87 manufacturers since 1985, have defied Nintendo by releasing two games including their classic *Pac-Man* for the console.

And they've launched a \$100 million (\$24 million) lawsuit under America's strong antitrust laws, which are designed to prevent any one company from gaining control of a particular industry. Among Atari Games's complaints is that Nintendo, by keeping all the game manufacturing to themselves, can charge software houses whatever price they want for cartridges.

In the UK, the boss of Nintendo's British representative, M&M remained unimpressed by the affair. 'They [Nintendo] have never lost a lawsuit,' Mike Williams told TGM. 'This is one that they have been preparing for.'

In any case, UK antitrust laws are considerably less strong than America's.

Console confusion

In many contradictory reports have been published of Konix's console, confusion the *Miphaman* and out for the high-stakes this console, that con-



fusion arises. The explanation seems to be that the console's specification has changed several times, and the sources of various magazines all have a different picture of what will eventually emerge from the south Wales-based company.

However, some things seem certain. The machine will sell for around £150 - possibly slightly above - and have a set of peripherals including a hydraulic chair, a light gun for firing at the screen and a helmet providing 3-D vision. Some of these will be sold as part of the *Miphaman* package others, including the hydraulic chair, will be extra.

Software will come on disk, and possibly cartridge too. Reports in several magazines of a 3-inch CPC-style disk controller have been erroneous, the

driven choice of disk format, and that which internal Konix sources confirm, is 3.5-inch, as used on the ST and Amiga.

Finally, it's almost certain that some elements of the cancelled *Flare-On* console are used in the *Miphaman*, though even insiders differ on whether the *Flare-On* itself is still in progress.

All who are familiar with the *Miphaman* do agree on one thing: it's great. Graphics, sound and game-control capabilities are said to be superior. In fact, so all it needs is software to match.

■ In 1986 next month, it all comes out in the *Miphaman* match with pictures, facts and a review of Konix's console.

FLIGHT FORMATION



What scored 97% in TGM, zoomed onto TV's *Get Fresh*, gave solid 3-D a new dimension, and made a star of a little-known utilities programmer? The answer, of course: *Starfighter 2*.

Now Jaz Jan and his team at Argonaut Software are working on a revolutionary 3-D flight simulator for Electronic Arts, and telling their story to TGM.

Each month, Jaz Jan provides the inside story on the state of *X* – the game's not named yet – and then another Argonaut member gives his view. The future is in their hands.

X started life on paper as an all-singing, all-dancing flight sim that beat them all, back in the days of 1988, when the original *Starfighter* was still not out. We decided that there had to be a good use for our nice fast 3-D routines, and

it had to be futuristic, have lotsa action, be very high-tech, and be a good excuse for some gratuitous 3-D polygons flying at you at breakneck speeds. (Seeing as how space games were becoming the rule rather than the exception, if the flight simulator

March art to follow: the Argonaut team are trying to make their own Starfighter 2, successor to Electronic Arts' *Starfighter* (TGM13). It sounds like an excellent idea for 1991's best graphics of the year: see *Vital Report*.

After the last minute rush of completing *Starfighter 2*, I found myself at a loss as to what to do next. I relied on my feelings, and I decided that I had a choice: I could either start work on *Afterburner*, the code-named conversion that Argonaut had just been contracted to write for Electronic Arts, or I could join the people working on *X*, our state-of-the-art solid 3-D combat fighter simulator.

The choice was easy. I had long wanted to work on a simulation, and *X* was going to be a ground-breaking program in many areas. It was going to be a realistic simulator, not just of aircraft in flight, but also of all the aircraft systems.

A modern fighter cockpit such as

rate command and start the Amiga upgrade. They certainly never knew what I was doing.

The MICE can print out detailed 3D or 2D views of the 300M has accepted all the computer crashes—no you know what caused the problem.

And you can tell the MICE something like this: "Oh nothing until a certain memory address is being written to or read from. When it is, stop what you're doing. After this you can test what price of code is writing to memory, and I think that it was the right code."

So we had a good low-level debugger from the start. "Why not start writing some more high-level debugging routines to help with more specific problems associated with our program?" So I quickly designed a full-text trace, and wrote a test program routine that would not only verify the data being done on the screen, but also display what the data was. Now we could get information on the screen about what each object in the game thought it was doing.

This was a fine idea, but how do you get usable information out of 300 objects without getting swamped with numbers? You see, every object in it has a whole piece of memory that it can tell its own. They read this for many reasons, like telling the 3-D models where in the world they are, what angle of pitch, yaw and roll they are at, and what animation stage they're in. Most games are designed as a series of slightly different animation stages, and running through these last gives the appearance of movement.

The problem was that some of those blocks were getting to be close to 300 bytes in size for just one object!

A solution at last

I decided that the most fun thing to do would be to allow the player to view any object in the game world from any angle or distance. And that solving problems of incorrect object sizes—the debugger would still data into the object I was viewing at the time.

This turned out to be a really good feature, and also a great help when it came to checking that objects were behaving properly.

Think of a fighter aircraft. In 3D you're going to be able to fly your jet fighter into enemy airspace, and report the enemy to send up inter-ceptors when they detect you out there. This is a great idea, but there's one problem: How do you know the enemy aircraft has done what it's supposed to?

Easy. I just transfer my view to one of the aircraft and I can watch everything it does in real 3-D, and read the computer plots as they occur in text and figures.

However, our problems had only just begun. There was still the great black box of bugs, crashes, fighter missives systems, fixed-up displays and countless more challenges. We certainly had our work cut out for us.

Christopher Humphries



a. These magnificent men and their flying machines: (left to right) Argonaut programmers Danny Everett, Peter Walker and Michael Davies. Below them (in glasses) stands Jesse-Joe San.

"A handy device for the Amiga allowed us to track down all the really embarrassing mistakes"

in search of bugs programmer Christopher Humphries



as if it were a small planet or moon. In *Starfighter 2* we had to replace this sphere and take a 3D world and real 3D objects positions, moving enough for men on the ground, buildings, aircraft, mountains, and coastlines. Some other programs cheat a little (and why not?) by using 3D positions but only 16-bit precision.

Groundtexturing was one of our pet projects. Many flight simulations often just have flat patches on the ground or even uncoloured patches that flicker out or shimmer. This even doing some experiments with fractal mountains and tested them out in it to see whether they'd lose the graphics close-to-mouth.

They look great and give a superb effect of low-level light, especially when you take in and out of them. Also, 329 polygons—triangles, rectangles and much more complex—coloured objects and up the graphics. It is a useful little work for an 80 or Amiga-8000 and a few hours' time.

That's in addition to the aircraft, buildings, hot-air balloons and any other goodies we have on the screen. Each of those objects is an average of 30 polygons. One helicopter even has 625.

That's all loads into the frame rate area. Even purveyors of 3-D graphics want to have the fastest, only leave 3-D builds out, but you have to bear in mind some aspects that affect the frame rate. To start with, there's your screen resolution, window size and number of colours. The amount of memory that's being filled will affect the frame rate a great deal.

FRAME RATE The speed at which the graphics change

Next, the complexity of the scene. That's how many polygons are on-screen, how big they are and how many sides each polygon has. Also, does the scene have a horizon then big polygons in itself? It's no good comparing the speed of a game that has only 30 small polygons on the screen with one that has 3000. It's pretty obvious that the latter the amount of processing is going on, so you can't expect similar frame rates.

Also, the size of the polygons is important. We notice that the majority of the processing time is in space actually drawing the 3-D scenes, and not so much is spent rotating and doing the maths. Of course, we have done a lot of work making the drawing and maths routines as fast as possible.

Another important factor is the time taken to detect collisions between all the moving objects in the 3-D world... after all, people would complain if they saw a tank drive through a building unharmed!

And more time is taken scanning through the database of the 3-D world, figures, etc. what's the size of a given point and what isn't. The more comprehensive the database, the slower the task is... and when there are a lot of moving objects, the results can't be predicted.

It's a good thing we aren't a one-man company any more, or it would never be finished.

Joe San

[illegible]

BE TOTALLY DAZZLED BY incentive

● **SOLVE** the puzzle . . .

● **WIN** a £1,000 trip for
two to Finland . . .

● **PLUS** £200 spending
money . . .

● **SEE** a real-life total
eclipse!

O

nce in your lifetime, you just might see a total solar eclipse – a uniquely impressive experience which seems, for a few amazing minutes, to blot out the mighty sun. And to celebrate the release of their stunning Pictscape game *Total Eclipse*, which earned over 90% on 5- to 7-

format last issue and is now out on 16-bit, Incentive are offering an opportunity to visit Finland in July 1990 and witness a total eclipse.

The five-day trip for you and a friend, worth about £1,000, includes return flights from London, four nights' luxury hotel accommodation, tours around the cities of Helsinki and Joensuu, and of course an unforgettable dawn trip to see the total eclipse. Incentive are also offering an £100 spending money per person, to cover any extra expenses you have.

Totally baffling

To win this once-in-a-lifetime prize, for which you're competing with readers of our sister magazines *CRASH* and *ZZAP!*, you'll have to solve the wordpuzzle.

And to make it extra difficult, we're not going to tell you what all the ten words are. Oh yes, "Incentive" and "Total" and "Eclipse" are in there, and you'll have to find them. But we'll only give you clues for the others . . .

1 and 2 The two Penzance bodies involved in a total solar eclipse (4 letters, 3 letters).

3 The revolutionary solid 3-D technique which Incentive first used in Deller (3 letters).

4 TOMM described 'Total Eclipse as 'a ???????? experience - a program not to be missed' (7 letters).

5 The country in which Incentive's game 'Total Eclipse' is set (5 letters).

6 The capital of Poland (5 letters).

7 The country's second biggest city, located about 100 miles north and just west of the capital (7 letters).

Send your entries to **TOTALLY BADDLED BY INCENTIVE COMP, TOM, PO Box 10, Ladbroke, Singapore 239 108** to arrive by February 18. Usual rules as printed on the contents page apply. All the correct answers will be put into a hat with the correct answers from the TOM and COMA competitions, which are no easier than this, and one lucky name will be chosen - winning a terrific Total Eclipse trip for two.

THE WORDSQUARE

T	A	M	P	E	R	E	S	A	F
O	L	O	M	J	K	O	I	I	R
T	A	O	V	F	A	K	E	N	E
A	I	N	C	E	N	T	I	V	E
L	U	W	E	I	G	U	L	B	S
S	I	T	S	O	S	Y	E	A	C
A	D	L	O	E	R	F	P	C	A
M	E	C	L	I	P	S	E	T	P
H	A	H	K	E	T	Y	R	V	E
A	S	N	M	A	G	I	C	A	L

The words can run up, down, across, or diagonally. When you find one, circle it or put a line through it. If you don't want to damage what Mr. Director picks out for a paper eclipse in a few years, send a photocopy of the page.

FUN IN THE SUN



Distances all down: the total eclipse only occurs on a small part of the earth, where the moon blocks the sun's rays. In 1989, it's visible from Poland - where Incentive is going - for about half an hour.

Incentive's Total Eclipse may be in every software shop in the land, but not the total solar eclipse are about as rare as Egyptian pyramids.

The reason? A total solar eclipse (also called a total eclipse of the sun) depends on the moon happening to be right in front of the sun, so we see it from earth. And even then, the eclipse is only visible very briefly for less than eight minutes and from a small area.

Other than a remote inaccessible part of the world - most of the world is remote from Britain and inaccessible, after all - which is why very few people will ever see a total solar eclipse in their lives.

For instance, the last one we took place over the Pacific Ocean around midday on March 17-18 1989, last-

ing less than four minutes.

Partial eclipses of the sun, in which the moon only covers part of the light, are more common - up to five of these can happen in any given year. There will be none from Cornwall in August 11 1989 (yes, sorry - not).

And then there are total eclipses of the moon, which happen when the earth stops sunlight reaching the moon and it seems to disappear. These are long and quite common - each year there can be up to three of 100 minutes each.

Readers interested in pursuing further the principles of eclipse astronomy are referred to the work of Irving Berlin, who summed it all up as 'I got the sun in the moon' and the moon at night.

ROBBIE THE ROBOT'S LONG GOODBYE



The stiff Croucher, Mel Croucher, landlord found him, lying tight there. We didn't move him till the boys from Lonsdale got over. Private dick, weirdo, seems like he was onto the collector. Reckoned you could make a fortune out of old electronic toys and home computers.

There's a pile of notes, look like he was talking to the boys down at Christie's. Couple of pictures, too, framed them to a guy called Robin Evans. Anyhow, read the notes. They'll explain a lot.

The sun went down like a burn tool on Clevered. By the time I hit the office, the rubber paint was peeling. Only The Lovely and the office coffee machine had gained the Condo. It had been one of these days. Tuesday evening I hit the robot button on the answering machine and the record delivered the only message I'd get since the Maltese Falcon went to look for Bernard Maltesse.

Maltesse? We'll come to that later, anyway. The African Grey repeated the last address my partner, Robbie the Robot, born 1955 on Fort-totten Planet, Robote was 35cm high, had a rotating antenna on top, remote control, battery-powered, made by the Yashiro Organization, Japan, and his goodbye note for me lay a plutonium-pink gas had on my bed-552.

We'd played together as kids, we were friends, at least I thought we were friends, and now he'd walked out on me after all these years.

His note was short: "Gaalilaye, Mel, me going to a better place where people understand my true value, which is about 500 quid plus VAT. If you want to know why, look Master Big

and ask him. So long, and thanks for all the Five Realities."

Well, no plastic space toy's gonna walk out on me without a struggle, so I caught myself a stiff one and phoned Dan Gals. But old Dan had quit too (2400 for his 1988 chassis, also had sold out). I didn't have to ask what could have convinced him, I already knew. Master Big Paris began to grip my guts like a revolver, as I fell down the fire escape to where I'd parked my steel Bull clockwork Atom Rocket Ship.

Farewell my lovely

By the time I made the parking lot it was nine, just sat on the griddle time. My tin ship was gone! All I found was a pile of tape from Master Big for 3200. Poor little Atom, she was only 30 years old and seven inches long!

What a hell's name was going on? My personal history seemed to be evaporating by the minute, and not just mine; old Iggy the Ice Man was weeping in the gutter moaning about his 1964 Japanese battery-powered Space Station, which had just deflected to a London auction house for 3270.

Then it clicked. They had stolen! More polished than the Mafia, wealthier than the Vatican private bank, more ruthless than Ruth... I had been hit by the monkey who spent cash like peanuts. The collectors were asleep!

I had only one choice: find Master Big. Track down the Condo. The wheeler-dealer. Locate the guy who deals with the biggest hogs whose shouts are stuck in the collecting trough. It wasn't hard to find him - Tim Matthews, so fat-back he was still up the chicken's neck.

He was so used you could hand him a doocutter and it would freeze. Tim Matthews, the greatest expert-making money for old toys - his real name is played kind, Tim Matthews, the man with the customer's hammer in his hand and the plan in his mouth at Christie's, world-famous auctioneer of the interposed to the overpaid.

I gripped him, but he didn't even break sweat. I knew that some Condo was paying over the odds for his toll's toys. I was working for an outfit called TOMB. I knew my level was bottomed on the inside. And I had been pained a handful of cheap old electronic toys, plastic robots, tin rocket ships and science-fiction comic books were worth more than a poke in a pig. So I stopped the conversation.

Mal Croucher, electronic gumbies, had cornered Master Big, the guy who was handing stolen clockworks. Here's how it went down:

Mal £1,000 for a plastic toy? What's looking who?

Tim Space toys, tin rockets, science-fiction ephemera, it's all rather stupid, I suppose.

Mal But are collectors really paying the sort of cash for computer toys and Robbie the Robot?

Tim It is a hyperactive market. It's all a huge fad which began in the United States about eight years ago. They went mad. They went bananas in my opinion it is a made-up market. Individuals with plenty of money who have overheard instant prices that by rights should never exist.

Mal But Christie's are doing all right by it, aren't they? Your specialist sales during 1988 were achieving fantastic prices for space toys.

Tim His had a sale in Amsterdam at which very silly prices were reached. Amsterdam and New York. They seem



to be the centers for these hyper-topped collectors.

Mal What are the most collectable items, what's really the meat?

Tim Robot toys from the 1950s, Space vehicles, rocket ships. Things that cost next to nothing when you and I were children.

Mal Over \$1,000 for the right toy to the right collector?

Tim Plus the Christie's standard fee of 10% on top.

Mal Including VAT?

Tim My dear fellow, plus VAT, Christie's always operates plus commission and then adds the VAT.

Mal So for a 1950s Japanese Space Explorer 3-D toy TV screen, the collector is paying \$1,300.

Tim Pull out 10%, plus VAT. About \$1,800.

Mal But if the silly money is coming from New York and Amsterdam, what is your advice to TQM readers who find Tim's collection in the attic, or come across these old space toys at junkie sales or in German shops?

Tim In Great Britain, I would not recommend that hopeful readers turn up at Christie's with boxes full of plastic space toys. These toys are bonkers, and your readers are best advised to alienate their privacy or swap them. Don't forget, if they put them into auction with Christie's and they don't fetch the reserve price and fail to sell, we charge a 5% buying-in fee.

Mal So hang on to them.

Tim Precisely.

Mal What about ancient computers, what about "vintage" software?

Tim Ho, Microsofty well, that just annoys. But who knows, they would have imagined the value of an ivory abacus ruler or a mechanical adding machine these days, now that computers and calculators have made them as extinct as the dodo? The fact that an organization such as Christie's is auctioning mass-produced robot toys from the 1950s and 1960s would have seemed ludicrous a decade ago.

The lady in the know

Matthews terminated the conversation. He was off to ship a D113 price list on a 1950s transformer robot with a flashing red dinosaur's head inside its robot mask (Dino Robot, made by Transformers).

So it was true, Timboto was paying big money for old junk. But why? Did they need their heads examining to reveal a flashing red monster? Had to get out of here.

A bubble-blowing model of Prepepe the Sator walked past made by Unimare and worth £200 as I failed a passing Superman/Moon Ship (made by TAI and bought for £110) and headed downtown to find some answers.

I traced the bars all I found her, cracking an Italian talking doll in one hand and a keyless in the other. Susan Flatchback, crazy name, crazy claims, who knows more about collecting toys than I know about fly-fishing. I picked up the bar for a bottle of stout, and began pumping her.

Mal Hi honey, want an Action Man?

Sue Big off, Cosmo, before I call the cops.

Mal Who's the girl?

Sue This is a Mar Stan talking doll,

"Today's rich barstards are yesterday's little kids who grew up with primitive games consoles."

THE



The Master Dog of Technology: Tim Matthews of Christie's

Photo: Christie's

about 100 years old, with four miniature Edison photograph cylinders in her guts. She is very rare and beautifully made, and she fetched £200 at Christie's.

Mal Andrew's a Christie's catalogue showing a Vintage Mars II Talking Robot, made about 1957. He also speaks five different messages, but he fetched over £200. What's going on?

Sue It's ironic, I know. Today's rich barstards are yesterday's little kids who grew up with toy robots and primitive games consoles. They are trying to recapture their childhoods, and they don't care what they pay. This antique doll wouldn't match a thing to them, whereas the dinosaur robot is part of the collector's own past. It's like the huge prices being paid for old comics and Starline cars compared to genuine antiques.

Mal So what is a £200, a ¥200 or a Dragon 32 going to be worth by the year 2000?

Sue Yikes has three components, as far as the collector is concerned. The obvious one is intrinsic value: a set of silver spoons started off being valuable, whereas a British J558's components are worth bugga all. But then there is the nostalgia factor, and that old computer is going to mean a lot to someone who cut their computing teeth on it when they are generic.

Finally, there is rarity, and that's why these vintage robots are fetching big money. When children got bored with them, or broke them, they simply threw them away. As for games con-

soles and computers, the earlier ones are getting rare by the week. People just junk them.

Mal So what is worth hanging on to?

Sue Everything.

Mal Including a Speak and Spell machine?

Sue Last year Christie's auctioned a 1984 talking Mars II Answer-Gene robot. A scolding thing that answers basic mathematics questions. It fetched over £1,300. So what price a Speak and Spell in the next century. God knows. My advice is to hang on to all these old calculators, especially the first Scientifics—they are bound to become collector's items. I mean, even a 1950s Markey Mouse watch is worth a small fortune, and the Scientific LED machine is worth more besides.

Mal Your friend, Sue.

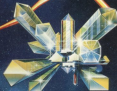
Sue I know, my hormones have been playing up.

I hit the streets again. This one was big, very big, laughter case I'd had since we cracked the Code Masters ring. He had enough on the collectors to tell them in anyone, but there's always more. Right now I felt ready to talk it through again with a slug of stout.

Something felt different as I moved up the stairs. As soon as I opened the door I knew what was wrong. The rob had taken Joyce, my word processor. But it wasn't the collectors—that was sharing all me from the robe on the table. It was TQM. They were in on it. They wanted what mine. And fast.

"THE BIGGEST GAME EVER" GAMES MACHINE

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"Visually realistic..."

Amiga User International

"Amazingly authentic sword fights, beautiful character sprites, an outstanding look, the feel of a professional and successful video production."

10 Out



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Computer Games Week



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The Games machine

REVIEWS

REVIEWS

The Games machine

TOP SCORE

64 ■ F-16 COMBAT PILOT

Digital integration may have been keeping a low profile of late, but they had good reason. *F-16 Combat Pilot* emerges majestically out of its development hangar without an impressive nine-year-old hand with behind it. Rerun on PC and S1, but soon to fly high on all major formats, *F-16* is as realistic in whether level in precision mode or on a deadly mission—we recommend you keep a sick bag handy for those T-2 turns.



The Games machine

STAR PLAYER

63 ■ MICROPROSE SOCCER

Now's your chance to compete in the World Cup, International Challenge or the Indoor League without having to wear silly shorts, freeze to death or knock yourself running up and down a pitch. MicroProse departs from their usual style of simulation to bring you the most addictive, fun-to-play and challenging football game yet—kicking other players is optional.



The Games machine

TRASH

59 ■ AFTER-BURNER — C64 VERSION

Experience tremendous gameplay thrill at the nation's of flight; battle your way through incredible odds; be stored by emotional music and stunning sound effects; feel as though you're ready there... then load *Afterburner* on your C64!



SPECIFICATIONS

Manufacturer: MicroProse
Developer: MicroProse
Publisher: MicroProse
Genre: Action
Platform: C64
Release Date: 1990
Price: \$49.95

System Requirements: 640K RAM, 1MB Free Space
Gameplay: 1-2 Players
Controls: Joystick, Keyboard
Sound: Stereo, Mono
Graphics: 320x200, 64 Colors

Box Contents: 5.25" Diskettes (5), Manual, Sticker
Additional Info: MicroProse Soccer, MicroProse Chess, MicroProse Golf

COMMENTS

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VERSION UPDATE

MENACE

Playpaper

Atari ST: £19.95

500 less than official rulers, ruled from their own galaxies, have formed an alliance and created a world of their own - Draconia. Each ruler uses his resources to develop intelligent fighters, spacecrafts and fierce mutant creatures to guard their part of the planet. Used as a test for marauding fleets, their threat must be removed.

Breaking past satellite defenses, you begin in the sea of Starbough, the first of six horizontally scrolling levels. Waves of stars - ships, planets, spaces,



A Long planets and the ST's horizontally colored play area calls for left dodging

skulls and planetsoids - advance towards you. They release an ion if the ship is destroyed.

Beginning as a 1000 points bonus, these are said to give speed-ups, cannon, lasers, out-toms (multi-

plier, shield replacement or force field).

The colorful sprites and ubiquitous end-of-level adversary are of the same clear quality as the Amiga original, but there is less room to manoeuvre around them. This is because a local status panel is situated vertically at the right of the screen, making the play area smaller and less-clear.

The panel and your ship are yellow and black. Even considering the ST's relatively limited colour capabilities, a better scheme should have been worked out. Bound is less clear and stripes appear (but the Amiga game, however, because on the ST is an excellent test).

ATARI ST: OVERALL 70%

AMIGA: TGM013 70%



An under-mounted end-of-level enemy looks against the beastly coloured spaceship

VERSION UPDATE

CAPTAIN BLOOD

Infogrames

Amiga: £24.95

CHARLES DARWIN has a lot to answer for, not just his theory of evolution, but also for selling video-frustrated programmer Bob Monrook that aliens are invading Earth through arcade machines.

Don need into dollars by losing a ship (ship) and a version of himself (Captain Blood) to fight the invaders - the ludicrous happened inside the program. Jumping to hyperspace to avoid an alien attack, a malfunction splits the body into 30 clones, each taking a proportion of his life force.

As the game begins, Blood has already been at work and only needs to activate remaining clones - spread through 32,768 planets (using Atari's generic map, planets are hyper-spaced to and investigated using Clone Orbits). If an alien is found, it is communicated with via coms, and may give information leading to a blood clone.

There exists a strong similarity to the ST version, Captain clones use the same attractive infacing,

as do the minimally animated aliens. And the psychedelic hyperspace and planet destruction

sequences are near the same. The effective fractal canyons are a little slower, but their less-flow quality samples and clearer clone multi.

Gameplay may be (over), but the interesting detective work of Captain Blood remains interesting.

AMIGA: OVERALL 70%

ATARI ST: TGM007 74%
AMSTRAD CPC: TGM008 78%
PC: TGM013 68%



A design unique graphics for actually after communication

BAT'S LIFE

BATMAN

Discs

The Caped Crusader — now also known as the Dark Knight, due to one of the recent in-vogue graphic novels — has had a long history in DC Comics, and the recently revived tacky television programme. His computerised life is not so long, having starred in an isometric 3-D game in May 1988, but is sure to go further as next year, there will be a third game, based on the forthcoming movie.

Putting on bolts and mask, and tying your twirling robe around your neck, it's time to take a heroic stance as Batman, guardian of Gotham City.

Theatricality permeates the scene, for as Batman is split into two independent halves.

The first features the via plane of the first wedding with the strange laugh — the Penguin. The plot, entitled *A Bird in The Hand*, has him apparently going straight after a girl in jail. The Penguin opens an umbrella factory, near his luxurious mansion, needless to say, this is a cover (you understand) for his penguin empire. Most penguins are manufactured and sold as part of a plan for world domination. You must infiltrate his mansion and shut down his master control computer.

The first few locations feature the Batcave (all 30 floors of part two which leads out to the street and eventually Penguin's mansion. Locations are shown in frames of varying shape and include short captions, comic strip-style — as the game develops, location frames are overlaid.

Dinner dinner

You walk left, right and in and out of the screen using marked directions. Picking up objects as you go, a command menu shows objects in your inventory to be dropped or used, usually to be killed or, game quit, and shows your remaining energy as a series of dots.

Energy is lost on contact with fire, mechanical toys, handbombs and fire bullets, but can be refuelled at the Batcave, (884 coins)



The Batcave, where millionaire Bruce Wayne practices making his use of the Batsu brother's (CBA screen)

regained with consumable objects. Revenge can be had on henchpersons with lightning moves or your Bataring.

The second and most difficult half is *A Few Words From Death*, where Robin has been kidnapped by the Joker. From a cryptic clue left behind, you deduce he is being held at the local bar, and also that your saviour's home is under threat by several bombs planted beneath it.

A simple arcade adventure, albeit with beat-'em-up undertones, is an unintentional game format for a home, but working crime in Gotham City through logic and violence is an amusing solution. It is hindered by the number of henchmen, particularly on the CBA, who don't die, fall unconscious or simply go away no matter how much you hit them. Luckily, with two independent adventures, their attacks are feasible.



COMMODORE 64/128

Cassette: £9.95

Diskette: £14.95

Batman is a decidedly short delight, so perhaps it's logical that his partner has little effect on enemies. His energy takes a pounding to the constantly marauding minions who, like the Caped Crusader, are valiantly defined and walk with a looping swagger. Few sound effects and middle-of-the-road music needs.

OVERALL 71%



A mobility screen from which items are manipulated (Spectrum screen)

SPECTRUM 48/128

Cassette: £9.95

Diskette: £14.95

Highlights of colour make clash, but a monochrome mode may be preferred, along with a town background colour. Characters are detailed and Batman looks better than his CBA counterpart. Unlike the henchmen are slow and less damaging than on the Commodore, increasing playability.

OVERALL 76%

OTHER FORMATS

Amstrad now (Cassette £9.95, Diskette £14.95), with ST (£19.95) and Amiga £24.95 very soon.

"Solving crime in Gotham City through logic and violence"



ENDOR LIFE AS WE KNOW IT

RETURN OF THE JEDI

Demos

The Empire has been giving the rebel alliance a rough time of late. Following their victory in the battle of Yavin against the Death Star, and subsequent defeat on Hoth, Luke and his buddies regroup to strike against the heart of the enemy — a second Death Star. Orbiting the moon of Endor, Death Star II, when complete, may prove the undoing of the alliance, it must be destroyed before it's ready for action.

The alliance divides forces: group one sets out to destroy the Death Star's shield generator on Endor, clearing the way for group two to fly in and destroy the reactor.

Split into four stages, battle takes place on Endor in four pieces, as the two groups take on the Empire's might. The first scene features Lando, where Luke rides through the forest on a speeder bike — imperial bikers give chase, firing beams at him and hurled into the trees. Cuddly Lucas makes a potentially helpful appearance, holding up signs and pushing tree trunks together after a speeder bike passes through — make sure you get through first though!

The second phase on Endor has Han and Chewbacca in a stolen AT-ST, rampaging through the forest towards the shield generator. It isn't far from being toward you and totally confused.

ATARI ST
£19.95

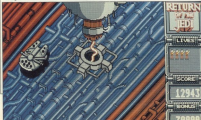
Zoom-on-style scrolling is not a specialty of the ST, but Jedi's is admirably executed, if a little rough around the edges. Colour is used to good effect and characters are well defined (the Falcon doesn't look much like its cinematic brother though). Crapky speech is present, but doesn't play as prominent a role as in the previous two games.

OVERALL 77%

***Banks and strids offer more joyfully as they Luke at who has arrived Spectrum Current



***Taking on the central reactor — that the movie, then a meal, then a nightfall... (Jedi) Summary



AMSTRAD CPC
Cassette: £9.95
Diskette: £14.95

Featuring the best of all presentation, Amstrad Jedi uses colour to great effect, although scrolling is slow and extremely noticeable. Some graphics are crude — George Lucas may be disappointed to see Luke riding a majestic creature through Endor's forests. Gameplay is good enough to make Jedi one of the better Amstrad games around.

OVERALL 75%



↳ Lords of War with those funny little creature Shunks, not Robin Haggart (27° corner)

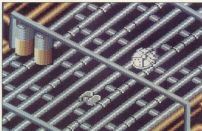
Shunks throwing rocks, this sector would be a double.

Look, no Han

In true cinematic style, the action switches between Endor and the space battle where Lando flies over Star Destroyers as he takes on TIE Fighters. Alternating between Endor and space continues until the AT-ST reaches the bunker area, with a casual lob, throwing a grenade in – up it goes.

With the shield gone it's time for a final assault on the Death Star – Lando flies the Falcon into the battlement. With his superior flying skills and the fastest ship of junk in the galaxy, Lando evades mines and TIE fighters as he races to destroy the reactor – and get out without being cooked.

Potential may have been missed by not using vector graphics, as in the previous two games, but the new approach is radical for most home computers. The resulting game is very playable across all formats.



↳ A full interceptor on the tail of Millennium Falcon (diamond screen)



↳ In capturing the partially complete new Death Star (starship is a pipe dream?) – (27° corner)

COMMODORE 64/128

Cassette: £9.95

Diskette: £14.95

The third in the trilogy adopts a scrolling, solid-graphics technique – novel and better for the C64 – rather than utilizing vector graphics. The result is a smooth, fast game – the most playable of the 8-bits. Better to look at due to the dull colours used and with strangely quiet sound, Jedi is nonetheless considerably better than were parts one and two.

OVERALL 73%

SPECTRUM 48/128

Cassette: £9.95

Diskette: £14.95

The necessity for precise control and persistent, accurate enemy blasters make the Spectrum Jedi the hardest of the three. What makes it so hard is makes up for in smooth scrolling and great presentation. A good game with which to end the trilogy.

OVERALL 71%

OTHER FORMATS

Amiga owners can take on the Empire any day now, for just £19.95.

"In true cinematic style, the action switches between Endor and the space battle"

WHILE JUST STARTING ON BBC1

A QUESTION OF SPORT

1989

BBC TV's *A Question Of Sport* is now such a long-running quiz programme that many people have forgotten when it first started (David Coleman certainly has).

Still, its success cannot be denied, being the most popular sports quiz on TV (not a huge amount of competition, there) and waiting in peak viewing figures of 10 million – a third of the population and a Princess can't all be wrong.

Hosted by the indelible David Coleman, *A Question Of Sport* has been through a number of team captains in its time. For the current series it's good old reliable Sir Beaumont and regular Sir Brian. Now you can emulate your favourite captain by leading your own team in a never-ending quiz.

Matches can be played against the computer or another player – or for real authenticity, with three players per team, passing the joystick around as necessary. Other than team captains, members are chosen from portraits of stars past and a specialist subject is chosen for each.

The game is split into rounds, each relating to sports trivia questions. Round One features the Picture Board, where all six members choose a numbered square and answer a scolding question from four possible replies. Two points are awarded for a correct answer, but running out of time or getting it wrong passes the question over to the opposite for one point. Each round leaves the general format.

In the Mystery Personality round you are given up to three clues on a person's identity, the player that name is selected from the four options, the more points you score.

Home On Away concerns your choice of specialist subject. If you go home, a question on that subject will be asked for one point; if away, a random sporting question is attempted for two points.

Sporting sporting captains

Probably the most interesting round of the TV programme (and we think so) is What Happens Next. Four possible outcomes of a specified situation are given, ranging from the sensible to the totally ridiculous.

The Spectrum's Quick Fire round gives you 45 seconds to answer nine questions. Should you get one wrong, two seconds are deducted from your time. On ST and C64 this round is similar, except both sides play simultaneously. The faster team to choose an answer gets two points, or

SPECTRUM 48/128

Cassette: £14.99

Diskette: £14.99

Team-member portraits are the only real graphics of the game, and unfortunately they're not digitised, leaving the hand-drawn faces mostly unattractive. Slashes of acknowledgment are the only sounds of this considerably unimproved version.

OVERALL 38%

★(Sir), quite extraordinary digitised portraits on the ST here. Remarkable.



gives the opposing team a point if answered incorrectly.

The final round returns to the picture board for the six remaining numbers.

To capture the spirit of the TV programme, *A Question Of Sport*, the computer game, should provide its visuals and sound round formats. Instead, it has been

limited to sports questions with a few appropriate graphics and names added. The rounds have been limited to fit into multiple-choice questions and answers.

which soon becomes boring. There are no blocks of questions to test, but even sport addicts may find it difficult to stile the odd year.

ATARI ST

£19.99

The ST's only graphical feat is to mix the Atari's tones and medium-resolution for digitised portraits and coloured borders on the same screen. Sound is restricted to mediocre jingles and music and the occasional bird effect.

OVERALL 42%

OTHER FORMATS

Amiga (£24.99), Amstrad (Cassette £14.99, Diskette £19.99) and PC (£24.99) are set for release over the next couple of months.

"Limited to sports questions with a few appropriate graphics and names added"

COMMODORE 64/128

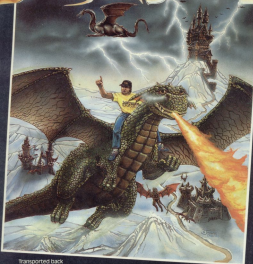
Cassette: £14.99

Diskette: £19.99

The coloured portraits are quite nicely drawn, and there are some pleasant sounds and good title music. The scrolling messages are well written, so presentation is slightly better, but it remains expensive for what it offers.

OVERALL 40%

DRAGONSCAPE



Transported back in time and space to an unknown era... you must stop the evil curse that has descended on the once beautiful lands of Tuvania. Together with your trusty dragon Garcan, you are Tuvania's only hope.

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8 SPECTACULAR GAMES IN 1 SPECIAL PACK

TAITO

COIN-OP

Hits



PAC-MAN 1982
 "Pac-Man is often said to be the most popular of all video games. It's a simple, addictive game that's easy to learn and hard to master. It's a game that's been played by millions of people around the world. It's a game that's been a part of our lives for over 20 years. It's a game that's still going strong. It's a game that's a true classic." *—The Official Pac-Man Website*

KANGAROO 1982
 "Kangaroo is a classic arcade game. It's a game that's been played by millions of people around the world. It's a game that's been a part of our lives for over 20 years. It's a game that's still going strong. It's a game that's a true classic." *—The Official Kangaroo Website*

SALAMANDER 1982
 "Salamander is a classic arcade game. It's a game that's been played by millions of people around the world. It's a game that's been a part of our lives for over 20 years. It's a game that's still going strong. It's a game that's a true classic." *—The Official Salamander Website*

THE GREAT ESCAPE 1982
 "The Great Escape is a classic arcade game. It's a game that's been played by millions of people around the world. It's a game that's been a part of our lives for over 20 years. It's a game that's still going strong. It's a game that's a true classic." *—The Official The Great Escape Website*



THE FINAL FIGHT 1982
 "The Final Fight is a classic arcade game. It's a game that's been played by millions of people around the world. It's a game that's been a part of our lives for over 20 years. It's a game that's still going strong. It's a game that's a true classic." *—The Official The Final Fight Website*

THE LAST NINJA 1982
 "The Last Ninja is a classic arcade game. It's a game that's been played by millions of people around the world. It's a game that's been a part of our lives for over 20 years. It's a game that's still going strong. It's a game that's a true classic." *—The Official The Last Ninja Website*

THE LAST NINJA 2 1982
 "The Last Ninja 2 is a classic arcade game. It's a game that's been played by millions of people around the world. It's a game that's been a part of our lives for over 20 years. It's a game that's still going strong. It's a game that's a true classic." *—The Official The Last Ninja 2 Website*

THE LAST NINJA 3 1982
 "The Last Ninja 3 is a classic arcade game. It's a game that's been played by millions of people around the world. It's a game that's been a part of our lives for over 20 years. It's a game that's still going strong. It's a game that's a true classic." *—The Official The Last Ninja 3 Website*

AVAILABLE ON
SPECTRUM
AMSTRAD
COMMODORE



CASSETTE
£12.95
 ALSO AVAILABLE ON DISC

BYDO-WRECK CONNECTION

R-TYPE

David Brown

Earth is about to meet its maker as the Bydo Empire contemplates its destruction. The inhabitants have banded together to combat the threat and created the R-1 fighter craft – designed by robots, built by robots, tested by robots and flown into battle war by a suicidal outcastee – guests, who!

You and your ship are promptly sent out to incite the Bydoans in the ways of the laser bolt.

Other than an on-board variable-strength laser, weapon power-ups are made available for collecting – providing R-1 with homing missiles, shields and a force drone armed with a variety of weapons. Through progressive scoring, collecting and more scoring, R-1 builds up firepower until it's one mean fighting machine.

When you're fully armed with homing missiles, selection lasers and a force drone that cuts a path through alien ranks, the feeling of power is tremendous.

Stomach the bowels

Unfortunately, like most games of this type, food a life and you lose at weapons – and almost any chance of getting through to the next level. This is unfair punishment which makes for a tough game – gameplay that keeps you coming back for

ATARI ST

£24.99

R-Type shows what Software Studies can do when they get down to business. The incredible jerky scrolling is present but sufficiently low-key to not be noticed. Each level and enemy sprite is attractively presented and remains faithful to its origins. Although the use of colours is not subtle, and there's an absence of colour in the scrolling background, the end result proves that even a highly graphic-intensive setting can be converted with considerable success.

OVERALL 82%

more though, and limited continuous-play provide a fighting chance.

Each level takes you further into the bowels of the Bydo Empire,

SPECTRUM 48/128

Cassette £5.99

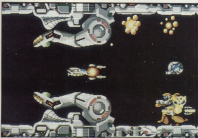
Diskette £14.99

Making excellent use of the host machine, this version is a sight to see with its incredible use of colour, minimal attribute clash, masses of alien to blast and frantic gameplay. A small point for complaint is the slow scrolling – hardly noticeable as you're too busy killing and avoiding. This game blows away almost every other shoot-'em-up on the Spectrum to date.

OVERALL 90%



▲ Alien blasting mayhem at its best with this great Spectrum conversion



▲ With the variable display fitted, the game is a sight – well, not 257 screens

with dozens of alien and mega-organisms of all shapes and sizes to deal with. Amongst them, the infamous mother alien, the second level alien-herd, complete with shields, the third-level anti-terminal spawning, even some megaliths are met as you progress through the eight levels.

A game that not without its many virtues, R-Type scores on its gameplay, action and addictiveness. An incredible blast!

OTHER FORMATS

R-Type is now available on QMS and Amstrad, (Cassette £3.99, Diskette £14.99). An Amiga version is planned for February (£24.99).

"When you're fully armed, the feeling of power is tremendous."

VERSION UPDATE

A dislike of citrus fruits

ELIMINATOR

Review

Amiga £19.99

JOHN M. PHILLIPS' ST tunnel-racing/hunting game arrives on the Amiga through the capable hands of Texas programmers T&E.

Eliminator involves destroying any alien beastie enough to get in your way - out-and-out blasting without reason, racing down 3-D corridors against a surreal space



Background

Even with collected extra weapons, bug-eyed monstrosities remain a problem - try not to run into them or absorb too many toxins - death is permanent.

Barriers, fires and obstacles of acidic water all add to give you a tough time. Fortunately scoring one rampa thrives your *Eliminator* craft up and over obstacles, or even onto the ceiling for thrills and spills of the upside-down world.

Flowing massively when it first surfaces on the ST, *Eliminator*'s Amiga debut is just as hectic a game, but one that bears no improvement.

There are surface improvements in sound but little else has been modified, the walls are starchy and the speed of play and duration of movement is no faster.

However, as *Eliminator* is fast enough already, the literally non-stop action keeps tension and demands high.

AMIGA: OVERALL 84%

ATARI ST: TGM011 92%



► A gentle curve to the right, but a chequered future lies ahead

VERSION UPDATE

Freescapism

TOTAL ECLIPSE

Review

Commodore 64/128: Cassette £9.95, Diskette £12.95

ALTHOUGH following the Freescape format of *Driller* and *Dark Side*, *Total Eclipse* breaks away slightly from its predecessors. It is set in the classic Egyptian world of an Egyptian pyramid during the adventurous 1930's.

Your quest is to reach the top of the pyramid and destroy a shrine before a two hour time limit runs out, when Earth will be destroyed

by an ancient curse.

Graphically, *Total Eclipse*'s rules on detailed solid colours and shapes to depict pyramids, obelisks, walls and galleys. Using a palette similar to the *Assault* game, a nice Egyptian atmosphere is created which is enhanced by a suitable soundtrack.

Although the claimed 15% speed increase is hardly noticeable, *Total Eclipse* is much less of a trial of patience than previous Freescape games. The relative speed of exploration, with nearly a one-second time delay for each movement made, is very acceptable for the type of game it is.

Puzzles provide fresh meat for veterans, novices too should find it a good introduction - the going is relatively easy to begin with and gradually builds up to some brain-bending puzzles.

Continuous exploration and puzzle-solving to really get the old grey matter working over time.

COMMODORE 64/128:

OVERALL 84%

AMSTRAD: TGM014 92%

SPECTRUM:

TGM014 91%

►Pyramid power - a puzzle is being you 4-11 puzzles and a two hour time limit in which to save the world



PC PRIZ



GRAND PRIX CIRCUIT

Accolade/Electronic Arts

Ditching the high performance super-cars of Test Drive, Accolade turn to the world of Nigel Mansell, James Hunt and Mick Lauda for Grand Prix Circuit. Following in the slipstream of Ferrari Formula One can Accolade again claim Pole Position?

As in Test Drive, a number of cars are to hand for the races set around eight international circuits. Potentially the fastest machine, a Ferrari, has been allocated a grid-for-a-beginner tag - a lot easier to control than the Honda or McLaren.

Each car has its own performance statistics which, combined with five skill levels, gives you flexibility in your racing style. On the lowest skill level, you race with hardly any controls to worry about - just go! At our previous year out on the track, higher levels require skill to keep from spinning, not blow your engine, avoid other racers and change gear manually.

IP3 stops are available - although don't expect anything more than a tyre change while

you're in there wasting precious time.

Grand Prix Circuit features a load/save position facility and the option to save your fastest times to disk.

Long circuit

You may also choose to enter single races or practice your skills before perhaps taking part in the ultimate challenge of the Championship Circuit - you're the best of the season.

Rather than go the way of Ferrari Formula One, Accolade have opted to stress realistic ground for concentrating on the race and its immediate problems. Although there are simulation overtones, the

Chassis: FW12
Engine: Renault 3.5 litre V6
735 Hp @ 11,500 rpm
Red line: 11,500 rpm
Gearbox: 6 speed
Tires: Goodyear
Weight: 1150 lbs/522 kg

4 Displaying your vehicle specifications - not that you've got a choice!



5 Going round the bend - and there's a corner coming up

game is of a generally simple nature and lacks depth. However, Grand Prix Circuit remains true to the spirit of high speed Formula

One racing, although you may have to look elsewhere if you want a lot more game with your action. Nice advert though.



6 There's no room to overtake yet, just bide your time and show stability - that's the formula

PC
\$24.95

PC games have tended to slip away from real action, substituting themselves firmly in the simulation mode of gameplay. Grand Prix Circuit is a pleasant change with its racing theme nicely integrated up in fast screen updates and good use of 3D graphics.

OVERALL 84%

OTHER FORMATS

Grand Prix Circuit is set to roar onto the CDi (Cassette) £9.95, Diskette £14.95.

"Remains true to the spirit of high speed Formula One racing"

HAMMING IT UP

PIONEER PLAGUE

Standard Software

One of the Amiga's famed graphic capabilities is to display its full palette of 4096 colours simultaneously... using HAM mode—Hold And Modify. *Pioneer Plague* utilises this and is reputed to be the first computer game to display such colourful graphics—on static screens (the restriction with HAM).

Pioneer Plague provides a bleak future, with your planet overpopulated and frantically searching for living space to which its countless inhabitants. The planet was supposedly found in the shape of pioneer probe Mark 10, devices which based as they went about the galaxy re-creating planets. They thrive happily for a while, forming habitable worlds complete with homes, offices and shops.

Unfortunately, as the sophisticated machines multiplied, so did a new bug in the original pioneers, making them into rogue probes. At first, they only created green concrete jungles, but recently, they've been ignoring the state of the planets they find, disregarding the inhabitants of worlds in favour of relentless grey landscaping. Naturally, they must be stopped.

Play begins in the control room of your mother ship, *LifeStar*, with four monitors in front of you. These are three important instruments at the top of the screen: (right and

fuel gauges, and a threat display.

The latter is used when you enter a planet's atmosphere, via the beam-visor, to depressurise before they escape. On the radio-like device, *LifeStar* is shown flashing, and your assault craft, *AirShip*, in white. Sky patches—launch pads for probes—are shown either as black dots, or not if a probe is already in the process of launching.

When about a hatch, *AirShip*,

can destroy it with a flame-thrower, or fire an probe defence craft, which patrols the sides of the multi-directional landing cities.

Impassments are represented by AirShip's dromes, small craft capable of following one of five pre-programmed flight patterns. This may also be used to gather energy from cities. You have two and, using your third monitor, programme their movement for later use. Patterns are saved to disk with the fourth monitor.

Drome on

Clicking on the second monitor displays your home-system chart. Here, planets with flashing/numbers next to them indicate that they are infected with the plague, and display the number of sky patches still active.

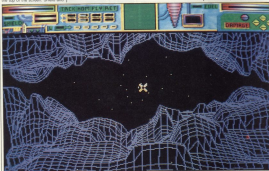
To move to another planet (the one you are in orbit around flashes), you use sub-Euclidean space, showing wire-frame-to-wire space, showing wire-frame-to-wire space. You spend along. Probe's colour back for missiles into the zone, which, on contact, have the effect of reversing your direction for a period, they are shot with a probe beam. To get out of sub-Euclidean space, a gravity well—a wire-frame planet—is shot.

In your transit computer is damaged, the collapse sequence runs: wire-frame sheets and sub-Euclidean plane transparencies (included in the packaging) for manual control.

Though the basis of *Pioneer Plague* is the well-known plan-view perspective, the novel additional features (and non-clashed



The infected galaxy waits for you to choose your next target for cleansing



Tracking the direction-reversing mines in sub-Euclidean space

AMIGA

C14/16

own pictures displayed while approaching a planet or other celestial body are generally very pretty, although there are some blurred coloured borders between contrasting edges, and some ill-proportion. Colour is over-used on the gamey status panel, but in contrast the cities are dull, to suit the grim landscapes created by probes. The only fault is the intermittent scrolling, which only comes into effect when Scyllip reaches the screen edge. Finally, there is an obvious but simple main theme and a scrolling tune for drone programming, and suitably wild sound effects with some synthetised speech. There's more meat to this game than just HAM.

OVERALL 79%

Scyllip expand the game into something notably more. That is not to take anything away from the shoot-'em-up, as speeding above a city, keeping an eye on the threat display and launching drones, is a highly enjoyable one, despite fierce enemy fighters.

Being able to program the flight path of the drone gives a sense of



control, and the ability to save these patterns effectively means you can customise the game. Scyllip's design is an interesting design and the collapse scenario makes interesting and often frantic use of packaging, which also includes cynical Douglas Adams-style instructions.

An interesting and exciting shoot-'em-up, with a little strategy – worthy of attention.

OTHER FORMATS

While *And Modity* is unique to the Amiga, a fairly colourful ST version is a future prospect.

"There's more meat to this game than just HAM"

VERSION UPDATE

NETHERWORLD

Review

Spectrum 48/128: Cassette (£2.99)

Amstrad CPC: Cassette (£9.99), Diskette (£14.99)

TRAPPED between equal forces of good and evil, your aim is to escape the mystical Netherworld in your wheel-like craft. To stay your way out, you collect diamonds which are around 12 scrolling levels.

It's not easy, though, as each level features a time limit and many enemies to contend with. The most prevalent form is acid bubbles, which are shot to release spores. These can, amongst other things, increase speed, give bonus points, temporary invulnerability or an extra life. Occasionally characters must be created by filling the required quota by using a diamond squarer or metamorphosis wall.

The Spectrum uses subtle shading to recreate the atmosphere of the C64 original, and objects are arranged carefully to minimise colour clash. One eye is distracted by rapid flickering of sprites, particularly on the otherwise impressively animated spinning ship – this proves irritating, especially on the Acornstar. This is a pity, as the graphics are very colourful and cut-time the C64 at some levels. The soundtrack music is excellent on the Amstrad, but drops out in parts on

the Spectrum. There are some interesting effects, in both versions, amongst the standard

scrolling fun.

These are the most user-friendly versions of *Netherworld* so far released – levels five and nine can be played without having reached them legitimately, allowing you to see the more difficult of the games feel as you create levels.

SPECTRUM 48/128:

OVERALL 78%

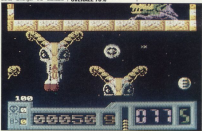
AMSTRAD CPC: OVERALL 71%

COMMODORE 64/128:

TGM010 76%

AMIGA: TGM013 75%

ATARI ST: TGM013 74%



▲ On the left is a diamond in the mystical Netherworld (Spectrum screen)

AFTER BURNER

AERIAL ARCADE ACE

SHAKE. R.



 **ACTIVISION**

SEGA

AFTERBURNER - THE ARCADE

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Available on C64 cassette (£79.95) and disk (£74.95), Spectrum (£72.95)

Amiga (£74.95)

RATTLE. ROLL IT..



Single screen shots shown

ST screen shots shown

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Already a massive success on the Commodore 64, Shoot 'em up Construction Kit has been hailed by ZZap64 as: "one of the greatest packages ever released on the 64". Now a team of top programmers, between them responsible for a string of hits including Wizard and Barbarian, have brought their skills and experience together to produce the ultimate user-friendly 16 Bit game designer.

AMIGA – £24.99 ATARI ST – £24.99
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Owlware Productions, The Old Forge, 7 Caledonian Road, London N1 9DX

Please check for availability of individual formats.



TO HELL AND BAAL

BAAL

Protoplay

Necromancers, sages and pessimists have all tried to predict when, and how, the world would cease to exist. Many have pinpointed 1999 as the year of mankind's judgement, and with the coming of BAAL they could be right....

On June 4 1999, a group of archaeologists uncovered an ancient doorway which, when safely opened, released a creature from Man's darkest dreams - BAAL.

In his waking, BAAL's minions stormed the planet and stole the ultimate war machine - with it, BAAL can rule Man and Implore him in eternal slavery.

In desperation, Mankind set up a war council and devised a counter-attack to recover the machine from BAAL and scattered throughout BAAL's domain and all BAAL, a force known as the warrior's is formed, and the battle begins.

Entering the caverns of BAAL, the six warriors confronted one at a time, are confronted to an Onslaught-style presentation - the major difference is a scoring play area.

BAAL's Kingdom is made up of three domains, he is to be confronted in the final region. To move to a new region you have to find a defined number war machine components. A transporter takes you further into the dark depths.

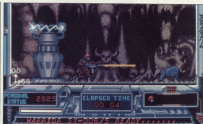
Each domain is made up of a system of platforms, ladders and bridges around which you run. And with more than 1000 scrolls to explore and map, this is not going to be a quick game.

new domain and for every 5000 points scored.

Machine components aren't left randomly lying around. BAAL has placed them the wrong side of the cliffs, across chasms and behind aliens. Forcefields are brought down by shooting their generators, but to get round most hazards you jump them. Impossible Mission style. Watch out for mines too.

If you don't find a suitable landing place before your fuel runs out, you lose a warrior.

As in Onslaught, BAAL has a save game function in the form of a collecting point where enemy levels can be topped up. The save position feature is odd, enemies are easy to shoot, progression has to be thought out especially when using the rocket pack and the aliens shoot so nicely. A tough



► Time to destroy the generator only when you've disposed of this pesky alien

Generator game

The simple nature of gameplay is offset by the size of each location, the ferocity of alien fire and the low number of warriors you are designated. Thankfully a further warrior is recruited on entering a

New time warrior carries a lethal laser with expansion state for four types of outposts. Finding cartridges is difficult, but you should deliverers as they're a necessity.

For getting to new areas of each region, a rocket pack is available - as long as you have sufficient fuel

going, but great to play again and again.

ATARI ST £19.95

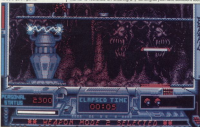
With the removal of the Protoplay traits of jerky animation and flip screen action, comes a super-smooth scrolling, fast-moving arcade adventure. Presentation is very slick and the atmosphere created masks what is relatively simple gameplay.

OVERALL 88%

OTHER FORMATS

An Amiga version with improved music should be out by the time you read this (2/9/99). 3-2X conversions are being planned.

"The simple nature of gameplay is offset by the size of each location and the ferocity of alien's mat"



► Deploying the might of your weapons, what a pity there's nothing to rage

HINDSIGHT SAGA

PUFFY'S SAGA

Libi Soft

That Libi Soft are a French company may go some way to explaining the unusual title of this (unusual) game, due to either language and culture differences or their naughty, risqué nature. Or perhaps it's just down to

the author, Claude Babillot.

Puffy, you may be referred to first, is a cute round yellow creature (a tender description) with a big problem on his hands (if he has hands), his beloved girlfriend, Pufin, has been captured and is lost in an underworld. Setting out to rescue her, Puffy himself becomes lost. His only means of escape is to collect clues to lead him to through the maze-like levels, while avoiding traps and monsters. This is a non-rated program as you can choose to control the long-tailed, but equally round Pufin as she tries to feed Puffy.

Each level subtitled as a four-way crawling maze game - *jeu maze*, Gauntlet style. Your main objective is to collect small spheres that give access to the next level, a task hindered by limited energy. You begin with 500 life-points which gradually decrease with time but take a nice little dent if you collide with a monster (ghosts, insects, bats, dinosaurs, or worst of all, auto-puzzles. Not technical to progress are turn tiles and sparks.

Saliva survivor

Luckily, there are ways to reduce the damage: Energy is gained by collecting food and sometimes are killed by repeatedly spitting at them. Special objects give advan-



as maps, fire power, life-points or extra lives.

Other objects available are keys that open gates or chests, and trig-

gers that activate with its light beams and warning ghosts.

Hilarity is added by the friendly bawling main character and silly speech, and adds interest to an old-fashioned (and difficult) game. Agressive spook-mans you at least given with 5000 life-points, but even then you don't last long. A source of some amusement, but only an average game.



Left: round dragon-collected mazes, spitting at ghosts and picking up magical gems

tageous properties such as extra speed, firepower, super shots and invisibility. All these are effective for a limited time only.

Additional features are added by collecting magic gems. These give blue spheres are collected and traded for items such

as keys that allow entry to previously inaccessible areas.

From a few seconds play, Puffy's Saga is recognised for what it is - a Gauntlet variant with humorous characters. It goes out as the added dimension of multi-player action, and on some levels

ATARI ST £19.99

Mazes are simply defined and scroll in large steps, creating a distraction to the eye. Some sprites are nicely defined but all are unconvincing in animation. The graphics are clear, unusual and amusing - Puffy, revivified! at all - but they can become irritating to some ears.

OVERALL 62%

OTHER FORMATS

Amiga (£19.99), C64 (£24.99), CD-i (£19.99), DOS (£19.99), Spectrum (£24.99), PC (£19.99) and Amstrad (£24.99) are set for a January/early February release.



* Puffy, no no, extra speed! - and similar silly speech abounds in Puffy's Saga

"Recognised for what it is - a Gauntlet variant with humorous characters"

THANK YOU FOR YOUR COIN-OPERATION

ROBOCOP

Ocean

Near-future America, crime is rapidly becoming the biggest profession. To combat this undesirable situation and bring law and order to Old Detroit, the privately-owned police department turns to high-tech manufacturers for a solution.

The first idea, a piloted patrol droid named ED-209, goes wrong, with fatal results. A second proposal is put into effect for which a body is required to support a titanium robot shell.

Cop-on-the-beat Murphy, is gunned down by bank robbers and it is his body that becomes the experimental model for the robotic machine. The result is part man, part machine, all cop - RoboCop, who sets out to clean up Old Detroit to make way for new development.

Criminals are everywhere. Gun-toting punks appear at windows, martial arts experts hang in the gutter and champagne swimmers try to turn him to 800hp metal, as RoboCop slices his way through walls, energy (in the form of baby food?), extra ammunition and other weapons are made available.

Once the street has been cleared, RoboCop moves on to a first-person 3-D combat scene where a criminal holds a woman hostage. Use your gun-fighter's aim to fire upon your enemies from behind. Not only is time of the essence but Murphy's energy level drains away each time the footage is hit (as does hers).

The action switches to another street, where RoboCop takes on all comers, including a gang of

Hell's Angels. Much carnage ensues until the futuristic Harry Callaghan reaches a garage where First, one of Murphy's murderers, is spotted. At this point the human

memories of the future are strong and he sets out to hunt down those that left him for dead.

Show no Murphy

In pursuit of the gang, Murphy uses the Detroit police computer to match up First's face. The sequence takes the form of an obstacle, as RoboCop tries to reconstruct the face of First. Played against a tight time limit, it is made all the more difficult by the minor differences that separate face parts available for choice.

(Based on data gained by match-

ing First's face, RoboCop moves to a drug factory to arrest the gang and continues by going to the GreenConsumer Products (GCP) building to arrest the high-ranking executive behind the gang of bank robbers - and meet a deadly opponent.

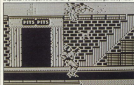
The final battle moves to a 3-D combat section, this time RoboCop takes the corrupt executive who is holding the GCP president hostage.

RoboCop follows the movie plot closely, interesting to say the least. Violence is paramount, and RoboCop goes overboard in providing it.

Geometry and close behind RoboCop are well used, but what matters is a winner is the way it expertly utilizes the straightforward, simple carnage of shoot-'em-up action. This is interspersed with equally playable sub-games such as the 3-D sections.

Other than its familiar game style, there's very little to find fault with.

Consistent attacks by the generally unhealthy criminal community keep demands and interest high.



▲ Identifying mechanical parts before making a Murphy death (Ocean's own words)

SPECTRUM 48/128

Cassette: £9.95

Diskette: £14.95

A lack of colour doesn't bring down what must be the best film to-be-yet. Animation is as good as you could possibly get and accompanying crisp speech and soothing title tune (128) only add quality to highly addictive gameplay. Multi-task presents itself on the 48K Spectrum but is easily endured.

OVERALL 81%

COMMODORE 64/128

Cassette: £9.95

Diskette: £14.95

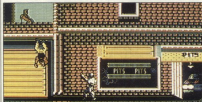
With only a solitary title to play with and continuous criminal attacks, RoboCop is one vicious game. Although in places a little gaudy in its use of colour, RoboCop is excellent, sporting a metallic-look befitting the film. Negatively, the 3-D shooting sequences are a bit slow, often the high-tech crime film style of the Spectrum game, and sound effects and in-game tunes are weak.

OVERALL 77%

OTHER FORMATS

Enforcing future law will soon be possible on the Amstrad (Cassette £9.95, Diskette £14.95), Atari ST (£19.95) and Amiga (£24.95).

"Expertly utilises the straightforward, simple carnage of shoot-'em-up action"



▲ Murphy saving pain by shooting criminals through windows - 4 was enough (Ocean's own words)

VERSION UPDATE

CRAZY CARS

1.5us

MSX 1/8: Cartridge £24.95

A QUARTET of high performance cars are yours for the driving in Crazy Cars, although you'll need

to drive hard if you want to upgrade to the fleet of a Ferrari. Incorporating strange logic, you



*Leaving Lambourghis, where are they going to resurface this road?



As they haven't got our secret about us yet -- this really is how Crazy Cars looks on the MSX

Depth is one of the most powerful cars of all, as Lambourghis, racing through each of four tracks that make up most of the four levels. You race against the clock and other cars -- who bring yours to a halt should you collide.

Cartridge-based MSX games have generally been of an excellent standard in terms of presentation -- until the arrival of Crazy Cars. Ignoring the MSX's potential for colour, the game resorts to monochrome graphics, making it very similar to the Spectrum version.

One nice feature is the smooth effect of roads and hills rolling past -- not fully realised, however, as there are no off-road graphics to complement it.

Crazy Cartridges and sounds no better than a poor 286-road racing game.

MSX 1/8: OVERALL 28%

AMELIA TOMBOO 78%

VERSION UPDATE

Officer's UMS

Universal Military Simulator

Revised

Amiga £24.95

REPRESENTATION of battlefields and use of pull-down menus refresh the game as on the ST -- good enough for eventful little changes -- only the addition of sampled sounds for Amiga (1600/2000 owners) and a colour-change option reveal which machine it is on.

Universal Military Simulator (UMS) shows battles throughout time to be re-enacted, and history books changed using 'What if...?' scenarios -- these, and the ability to change the structure of battles, are the program's strengths.

UMS lets you bring armies together from different times in history to fight one another, new armies can be designed (either factual or fictional) and even 3-D landscapes changed for ultimate variety.

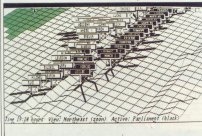
UMS isn't as complex as 3D wargames and is restricted to ground combat, naval, air and combined forces warlike aren't catered for. What it does offer is a powerful wargame program with the flexibility of an adventure game.

friendly construction set within a realistic 3D setting -- all superbly presented.

AMIGA: OVERALL 81%

PC: TOMBOO 92%

ATARI ST: TOMBOO 95%



* Strategically speaking, UMS is one of the best battle simulations available

ORGAN FUNDS

NEUROMANCER

Electronic Arts

Followers of TCM's Stuart "crackers" Wynne's column will be familiar with the grim future predicted by the branch of science fiction known as cyberpunk, and the most respected and famed author of the genre, William Gibson. *Neuromancer*, the book, was featured in TCM#110 and the computer conversion previewed as part of a feature on the programmers, *Interplay*, in the following issue.

Deary-eyed and stained with spaghetti sauce, you attempt to gather your wits as you wake in the Chetivito bar, your starting destination after the past two day's endless drinking.

The city is Chiba, in the Kanto district of Japan, a place foreign to me, but infamous in reputation. Crime is ever-present but subdued, and death is the price for slips of action or manner. People sell body parts, replaced by cheap synthetic replicas, just to have enough money to survive.

Friends and cowboys of the curious data dimension of cyberspace have gone missing, without trace. You have decided that the bustling city of Chiba is worth heading for the possible solution to the mystery—somewhere in cyberspace.

Normal databases (Comlink) are commonplace in 2080, but cyberspace is restricted to multimillion corporations and government organisations, its protected from hackers. Cyberspace is a 3-D computer world, generated by coded (computerised data-represent) so that users can make sense of the pure information as they experience the dimension as if really there. Cyberspace devices are supposedly unavailable to private users but through less-than-scrupulous dealers, software can get hold of the hard- and software.

To solve the mystery of the disappearing people, you must get a clear picture of cyberspace, but to begin with, a deck of any kind is needed.

A novel idea

Some placed at the bottom of the screen are the key to interaction. They change the mode of a small display (showing amount on your credit chip, the time, date, or connection health level), tell your secondary display statements to say to other characters, allow movement to other locations and offer load/save/quit and restart.

The city is explored for objects and information so that you can link up with the correct passwords, to databases and begin your investigations properly. The grid of cyberspace is your ultimate aim, but before there are defined by Intrusion Countermeasures Electronics, which must be neutralised by calculator programs

found elsewhere. Some basic new Artificial Intelligence programs are necessary to defeat, which are even more difficult to defeat.



Four unwitting starting locations: the Chetivito bar, Chetivito's head



William Gibson, looks out from the title screen

Anything in life is free, especially in Chiba, so when your bank account runs dry, the only way to fix it (Comlink) and access cyberspace is to sell your body parts, and have them replaced by plastic ones. More cash is given if a body shop for vital organs, but synthetically your constitution.

With a cyberspace role-playing "adventure" from the makers of The Bard's Tale series and Interland, an atmospheric game of great skill we haven't been disappointed. Using extracts from the novel, but adds feeling and grim humour to graphics and helps get you into a game requiring tenacious, concentration and time.

Hacking and cyberspace are a long way into the game, but *Neuromancer* is worthy of the effort required to get there.

COMMODORE 64/128
Diskette: £74.95

The game is introduced by a title screen showing William Gibson "interviewed" to a computer and backed by a gently sampled Gene (American synth band) song. Backgrounds are simply drawn with subtle facts, and though sprites are blocky, their faces are defined with character. Movement is mostly restricted to your alter ego's casual walk, but adds the unusually slow play, in-game sound is a few synth soundeffects and a possible rendition of Devo's Some Things Never Change. Disk access is remarkably frequent.

OVERALL 85%

OTHER FORMATS

Comlink 1.3 software should be running on the simulated decks of the PC soon (£24.95).

"Text adds feeling and grim humour to graphics"

DON'T KNOW THEM FROM ADAMS

THE MUNSTERS

Again Again

This spooky license, released on Alternative's new full-price label, was reported in *TOAD*911, and was met with some interest. The black and white American television comedy series has been a success for almost 20 years, and in Britain has been shown regularly on Channel 4. It concerns a bizarre monstrous family and their adventures amid an ordinary American town.

Head of the household is the clumsy/emburying/terrific, a Frankensteiner's monster of many parts. His wife is the stress-related vampire Lily, daughter of the eerily blood-sucking scientist known as Grandpa. Herman and Lily's offspring is little Eddie, while their niece, Marilyn, is the only ordinary person at the bunch. The family also have a pet, Spud - a huge fire-breathing dragon that lives under the stairs.

Their lives are disrupted by demons of the underworld. Marilyn is recruited by the evil, malicious "Old Nick" (a way not often described in review editor) - the deliriously funny naturally plan to rescue her. Their instincts do not end there, however, as vampires, ghosts and ghouls invade their mansion and put a lid on Lily's kindless greed.

'You guide Lily through the maze rooms of the mansion, and out into

the grounds, searching for magical items to save the family. Brains are disfigured by spells that increase your spellpower, but contact with them reduces not only this but your energy level. High levels of spellpower enable you to hit strong enemies who guard useful items.

Eddie the kid

Objects are multipurposed to bring Herman to life, who you then control to free Grandpa and Eddie. Mixing up with Grandpa at the Hearse Dragline, Herman automatically drives the vehicle to the Chateau where Marilyn is held - where you then guide the dragon and his fiery breath.

Once at the Chateau, the last mini-containers are brought back until Marilyn is rescued and the family reunited.



Chops, you should have stepped up your spell level before going out to the garden (Spectrum screen)

The games designers obviously spent little time looking at the TV series before opting for a winking (and later, flying) shoot-'em-up with minor arcade adventure elements - little at the game, other than its title and music, reminds you of the fun characters. Sprites bear only slight resemblance to their screen originals and humour is non-existent, so no atmosphere is generated. The simple gameplay may appeal

to some, so if possible, try before you buy.

SPECTRUM Cassette £19.95

The play area is mostly black and white, in fitting with the programme, but has colour in flash-avoiding areas - and Lily is more elegant as she walks speedily around. Sound is notable in 1989, with a very nice version of the music. Still a tricky game, but more playable than the ST version.

OVERALL 65%

ATARI ST £19.95

Some impressive visual effects introduce the game, which has nicely shaded, detailed backgrounds and sprites. However, even occupying the small number of pixels to work with, the characters' faces are crudely fashioned. Some enemies are horribly vicious, reducing you of your single life or taking a sizeable portion of your energy. The ST's simple sound chip performs a reasonable rendition of the lovely TV theme music, and there are a few appropriate effects.

OVERALL 97%



Herman and Grandpa stare at Lily through spell-imbued eyes - she must save them! (ST screen)

OTHER FORMATS

The conventional C64, Amstrad CPC, MSX (all Cassette £19.95, Cassettes £24.95), and Amiga (£19.95) versions should be on the shelves by the end of January.

"Stim sprites bear only slight resemblance to their screen originals."



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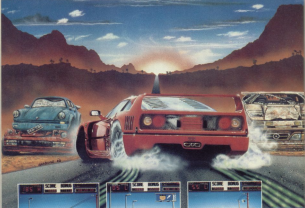
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Also available for AMIGA £24.95 and ATARI ST £19.95

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£ 64/126

THIRD BLOOD

RAMBO III

DOOS

Alghonistan, scene of many modern-day battles, is the setting for *Rambo III* — once again Vietnam veteran John Rambo is a man with a mission. This time his mentor, Colonel Trautman, has been captured by Russians and locked up in a mountain fortress. Rambo is impelled to rescue him for honour, the good of his country and a few million dollars more from the CIA office.

Even Rambo can't shoot up an entire fortress of Russians and live to rescue his Colonel — instead, having you to control his movements, his code-guts and ability to break around and avoid triggering alarms.

The first section features an overhead view of big damn moving through the fortress and its surrounding compound, searching for keys, weapons and other items to help in the rescue.

Weapons are either quiet or not — silence is golden, essential to live and arrows, knife or pistol with silencer attached, to avoid unnecessary confrontation. If, on the other hand, you want mass destruction, go for the explosive arrows or machine gun and wait for mayhem to ensue.

Rambo has limited energy which is reduced partially by bullet hits, or fully by walking over a mine.

The fortress features doorways, passages and storage rooms to explore. Alarm triggering infrared beams and meticulously observed doors add to the hazard of deadly Russian soldiers. Outside in the compound, minefields and a horde of Reds keep the passage off.

Sometimes, deep in the fortress, together with alghonistons, is Colonel Trautman. Getting to him automatically forces forward across Rambo access to the second section.

Rambo is on his own, and in deep trouble. The Russians are hopping mad and out for blood — Rambo's. He heads north, setting and priming bombs en route, before escaping in a stolen hind helicopter.

He ain't heavy

The first section features a

4 partly Rambo in the tunnels of a Russian mountain fortress



SPECTRUM 48/128

Cassette: £8.95

Diskette: £14.95

A tough game, with trigger happy fast-moving Russians rushing around and rapidly disappearing enemy units. The original *Fortress* wasn't too good to look at, but the original features some detailed graphics, effective use of colour, and it plays well — it slightly frustrating through its difficulty.

OVERALL 72%

Top violence was the key theme, is keeping with the theme, Rambo II's mythic death and minimal enemy contact to get through the fortress section — but for the second and third stages it's back to a fast moving, enjoyable, mindless shoot-'em-up.

The similarity between the first

and second sections and narrow scope of interaction results in repetitive gameplay. This, and no save-position option, can make play frustrating. However, if you persevere, you find a good arcade adventure plus a frantic blasting sub-game — one that remains faithful to the film.



Most where you put your mouse, sound features of your PC is for a getting (Spectrum version)

COMMODORE 64/128

Cassette: £8.95

Diskette: £14.95

Rambo looks a decidedly pluggie sports wandering around an unimaginatively coloured fortress. Atmosphere is difficult to create for those who haven't seen the movie, but the C64 has a go, and succeeds.

OVERALL 72%

OTHER FORMATS

Rambo shows away an entire Russian army on the Amstrad CPC: cassette (£9.95), Diskette (£14.95), ST (£19.95) and Amiga (£24.95) soon.

"A good arcade adventure plus a frantic blasting sub-game"

SHOW HIM THE ROPES

TKO Accolade

TACO attempts to bring the bloody violence of boxing to your computer screens, by showing the cuts and bruises of pixelated combatants as mighty blows hit home. The packaging features a Mike Tyson look-alike, who seems a likely candidate to deal out damage, but one of the human-controlled boxers is closer to Frank Bruno—a candidate to take damage . . . ?

You guide the gloves of a boxer at the beginning of a championship, having to face five computer opponents, chosen by the computer from a selection of eight.

You too have a choice: there are four boxers in training whose portraits and statistics are displayed. These indicate stance and the ratio of left and right hand power, total punch, strength, and weakness. These attributes are adjusted by highlighting the appropriate features. Also given are the number of wins, losses, knock outs, and technical knock outs—knock out by knocking down the opponent three times in a round or when the ring doctor decides that he is too hurt to continue. These latter statistics begin at zero, increasing as the championship develops.

The length of the fight is chosen, another bout begins. The screen is split into three areas. The upper half of your boxer is shown above his opponent, both of whom face out of the screen. As punches are thrown, glowing fire deal out punishment.

A status panel at the right shows energy, time remaining for the round, round number, and a small plan view of the ring, with the boxer's position marked.

exhaustion, rapid button pressing may revive your mated after-go.

There are nine offensive moves, whose target area depends on the joystick direction when first pressed. The type of punch—jab, hook or uppercut—is determined by your guard height when thrown, and the amount of damage inflicted is fixed.

At the end of each round, statistics are listed for each boxer's performance.

A two-player game allows friends to compete in a single match.

Complete views of a ring, with side views of the fighters, are the

COMMODORE 64/128

Cassette: £9.95

Diskette: £14.95

Boxers bob around convincingly, animated well for their size. And their rapidly thrown punches are neatly executed. Wounds are effectively drawn and coloured but are too mild to merit any real consequences. Plus this much leads into simply fashioned while noise sound effects that belie the aggressive nature of play.

OVERALL 74%



► A worried human-controlled boxer—so would you be at the prospect of multiple blows to the face

A certain ring to it

You have the levels of guard height (head, chin, throat, chest and stomach), up and down joystick directions throwing your gloves. If you're knocked out from energy

standard format for boxing simulators, so far as moves incorporating pseudo 3-D as punches come out of the screen, are a novel twist.

While offensive and defensive

moves are comprehensive, there is no way to sidestep more around the ring—allowed only by influencing the boxer's footwork with d-pad. This turns the game largely into a simple stoppage match, despite its extensive multi-variable combatants.

The round-to-round score appears gradually, which, although realistic, generates the blood-thirsty aggression. Luckily TKO has energy without this, and its polished programming makes for an impressive fight simulator.

OTHER FORMATS

For £24.95, PC versions will be able to get boxer up in March.

"Polished programming makes for an impressive fight simulator"

Action!

Name: Boxer 1
Stance: Left
Power Hand: Left
Best Punch: Head
Strength: Speed
Weakness: Fatigue

Next Opponent: 4th Contender

Name: Clyde Johnson
Stance: Left
Power Hand: Left
Best Punch: Head
Strength: Speed

Boxer 1

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Johnson

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SHORTS FOR ALL

MICROPROSE SOCCER

MicroProse

Sensible Software are well-known to C64 gamers for the annual addictive shoot-'em-up, WUball and their games-creator, the successful Shoot-'Em-Up Construction Kit. After many excited previews, their latest money spinner is finally complete: a nice game of footy. Within the package are two distinct types of game. *Admission Friendly* and *Player Friendly* (also known as *So-A-New Indoor Football*).

Four types of game are possible with each football style. In the *MicroProse International Challenge*, 16 increasingly difficult computer-controlled teams are faced as you work your way up (and frequently down) a league table.

World Cup Tournament (the title is *So-A-New*) arranges 24 countries (States in *So-A-New*) into six league groups. Up to 16 human players can choose the country they wish to represent from a selection of 26. Each team plays three matches to determine who goes on to the quarter-final sudden-death play-offs. The results of non-human matches are calculated by the computer, taking into consideration the skills of the countries' teams and adjusting the difficulty of matches involving human players.

Soccer/Indoor League simply allows up to 16 human players to play against each other in a league situation. Two *Player Friendly* is a single match between two humans.

Other options allow players names to be entered, team colours selected and other factors adjusted, such as in-game music, banana kick curve power, match length and so on.

Weather or not

The waiting area and kick off made, the player under your con-

trol is indicated by instant floating. In auto-speed mode the computer usually selects the player closer to the ball, while in manual, you may change players by pres-

~ Goals, goals and there we go! In the often confusingly team-free style of the most obvious football simulation to get near the T800 team



sing the

spacebar into the ball collects it and your player automatically dribbles it. Pressing the keys the ball is always determined to how long the button is pressed. The direction the joystick is pushed (relative to the direction you are facing) determines the type of kick: chip, volley, header or backward-overhead.

If the opposition has possession, pressing fire, while running, executes a sliding tackle, but with just the ball can be gained by taking a throw right under their noses. Tackles and other moves are made lively by excellent sound-effects - torrents of rain, sometimes accompanied by rumbling thunder and bright lightning.

In moving away from the usual football viewpoint, *Sensible Software* have eliminated that perspective problem, but it is difficult to tell which players are yours, due to the small amount of team-colour on sprites. In all other



~ The six league groups of the World Cup Tournament displays for your perusal. What's the hottest England beat-out? At least, it's an amusing ad game

COMMODORE 64/128

Cassette: £14.95

Diskette: £19.95

Semi-cartoon sprites but energetically around a pitch, and smoothly scrolling pitch, responding sharply to joystick control. The ball moves effectively around the pitch, growing and shrinking in perspective when kicked upward, but the most impressive visuals are the action replays, complete with scan lines as the 'video tape' is rewound. Convincing sound effects - whistles, hooters, kicks and weather sounds - are matched by Martin Garway's jolly football tunes.

OVERALL 88%

regards, *MicroProse Soccer* is of the highest quality - its fast action makes it far more playable than other soccer games. Like *Speedball* but without the violence, it is a speedy competitive game which is easy to get into but tough to master.

OTHER FORMATS

PC systems can have a fun knockout tournament for £24.95 - other formats are under consideration.

"Fast action makes it far more playable than other soccer games"

PORTUGAL				GERMANY				DAY 1	
GROUP A	GD	PTS	W	GD	PTS	W	L		
PORTUGAL	0	0	0	GERMANY	0	0	0		
FRANCE	0	0	0	FRANCE	0	0	0		
NETHERLANDS	0	0	0	NETHERLANDS	0	0	0		
SCOTLAND	0	0	0	SCOTLAND	0	0	0		
GROUP B	GD	PTS	W	GD	PTS	W	L		
NETHERLANDS	0	0	0	NETHERLANDS	0	0	0		
FRANCE	0	0	0	FRANCE	0	0	0		
PORTUGAL	0	0	0	PORTUGAL	0	0	0		
SCOTLAND	0	0	0	SCOTLAND	0	0	0		
GROUP C	GD	PTS	W	GD	PTS	W	L		
NETHERLANDS	0	0	0	NETHERLANDS	0	0	0		
FRANCE	0	0	0	FRANCE	0	0	0		
PORTUGAL	0	0	0	PORTUGAL	0	0	0		
SCOTLAND	0	0	0	SCOTLAND	0	0	0		
GROUP D	GD	PTS	W	GD	PTS	W	L		
NETHERLANDS	0	0	0	NETHERLANDS	0	0	0		
FRANCE	0	0	0	FRANCE	0	0	0		
PORTUGAL	0	0	0	PORTUGAL	0	0	0		
SCOTLAND	0	0	0	SCOTLAND	0	0	0		

VERSION UPDATE

Slow slow quick quick dock

ELITE
Revised

Amiga £24.95

UNDISAPPOINTINGLY taking next to no time to convert from the ST, Elite scales new heights with probably the definitive version of the original 1984 game.

In graphics and play this is no different to the old version. The only exception is that **Mr Mure** have made use of the Amiga's hardware slightly faster moving 3-D solids.

The Amiga's extensive colour are conspicuous by their absence - shades of blue being the main order of the day. Unfortunately not enough is made of the machine's power.

Pride of place is undoubtedly the music, a slow, relaxing rock beat of Strauss's Blue Danube waltz - a tune that one could listen to for hours - wonderful stuff.

AMIGA: OVERALL 80%

PC: TGM009 80%
ATARI ST: TGM012 84%
MSX: TGM013 80%



At last, last, and not only easy... Ship, Ship, Ship



At there's no time to admire your pretty shipyard panel when you're about to be grabbed by the Cobras

VERSION UPDATE

SOLDIER OF LIGHT
Revised

Atari ST: £19.99

Commodore 64/128: Cassette £5.99, Diskette £14.99

NEED saving Pato coin-up and favourite of **Wizards** **Wizards** **Wizards** involves the last given by **Soldier of Light** Command to Federation **Soldier of Light**. A number of planets have been invaded by a very roughy **Soldier of Light**, it is **Soldier of Light**, and therefore you, talk to free them.

Choosing the planet you wish to liberate, your fight begins in a horizontally scrolling scene,

where you run from left to right - you may also fly short distances using all boats.

Beginning with a standard store laser, pods dropped by alien **Soldier of Light** give double-shot, fireballs, high blockers, or armour-piercing torpedoes. Levels are played against a time limit and feature non-standard threat of **Soldier of Light**.

To travel to the next world, you found your laser-equipped



At last, last, and not only easy... Ship, Ship, Ship

At last, last, and not only easy... Ship, Ship, Ship

At last, last, and not only easy... Ship, Ship, Ship

At last, last, and not only easy... Ship, Ship, Ship

beginning on screen. Graphics are adequate rather than especially accurate design. Animation on objects is minimal, and **Soldier of Light** is particularly unimpressive in movement. He is a short fat

sprite on the CGA, but the most of the graphics, makes good use of resolution and colour. However, the scrolling play area is disappointingly short.

The score of music is nothing special but the CGA's effectively conveys - like music, sound effects are standard on both machines.

A slight disappointment for 16-bits but a good conversion on the CGA.

ATARI ST: OVERALL 70%
COMMODORE 64/128:
OVERALL 77%

SPECTRUM 48/128:
TGM008 66%



At last, last, and not only easy... Ship, Ship, Ship

When the lights go up
the show goes on.



MOVIE

**MOVIE
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CLOSE**
A Fatal Attraction

VIDEO NASTIES
The real story

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MOVIE

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MOVIE is the new monthly for the film and video world, published by the same people as *TIME*. Issue Four is on sale December 22 - 84 feature-packed pages on who's who and what's what on the screen including Glenn Close, Jack Nicholson and the inside story on video nasties. PLUS a 16-page Richard Attenborough supplement, latest in a 12-part series MOVIE - The Video Magazine. \$1.99 from all good newsagents. Subscriptions available - see MOVIE for details.

LOUD PROUD 'N' DEADLY

THUNDER BLADE

US Gold

Remember the movie *Blue Thunder* with Roy Scheider as the rogue-helicopter pilot? It was the inspiration for Sega's co-op, *Thunder Blade* which in turn has become US Gold's hot new licence for Christmas.

Picture the scene - after diving your sleek ferret at breakneck speed around the sunshine state you decide to go back to your home-county. Arriving in the capital you discover that evil doer General Strydom has decided to invade your green and pleasant land.

As you are an allround superhero and veteran helicopter pilot, your head quaters call you to take to the air in *Thunder Blade* to save the invaders.

The rebels are fast moving and have already taken control of a city of skyscrapers, occupied mountains and deserts, taken over the river boats and set up their HQ in a massive oil refinery. It's time to stop them.

Each of the four levels is played over three sections. The first section takes the form of over-flying landscapes, the second is the more traditional 3-D flight, the final section is the block-down mission as you pit your chopper against a motherload of generic imperialism. On the final level *Thunder Blade* faces Strydom's

robust command fortress in a climatic battle.

Roger 'n' out

Don't get cocky if you manage to fight your way through helicopters and tanks on the first level. Strydom has an intercepter, strike aircraft and cruisers at his disposal for later levels plus behind-the-scenes motherhips.

Without a Cut Runway, generally

AMSTRAD CPC

Cassette: £9.99

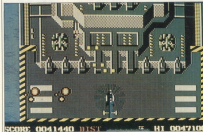
Diskette: £14.99

For some reason the playing area window is not only restricted, but changes its vertical position with each new section. Look-down sections are fine but flight through 3-D landscapes can be a little tricky as tanks are the same colour as helicopters - the greatest number of tanks on screen tends to make the action look very messy. The over-riding problem with this version is it's easy, too many lives and not enough enemy fire combine to destroy the challenge.

OVERALL 54%



• Through the canopy of your mind-boggling action - watch those tanks (left screen)



• Virtually scrolling so that clouds as you fight against all odds in Strydom's last fortress

unsatisfactory in not achieving good graphic quality or playability. *Thunder Blade* defers to a lot. It features a high level of generally satisfactory and comic quality to suit the local machine.

There may not be as useful a lot of depth to each section - the moderately shallow nature of the game being a fault of the coin-op, but *Thunder Blade* wins through due to its monster-gamplay.

SPECTRUM 48/128

Cassette: £9.99

Diskette: £13.99

Graphics to the point of excellence - a shame the monochrome screen makes spotting the enemy bullets difficult. Play is fast and at least as good as other versions. Tanks have done extremely well to control the coin-op look, stick and gun based to the Spectrum.

OVERALL 67%



• Flying high on an amount of revenge, building your hopes up for victory (Atari screen)

ATARI ST

£19.99

Graphically as close as it could be to the coin-op, featuring expertly laid-out digitised graphics on the title page. ST Thunder Blade is also the toughest of the lot mainly due to the excessive number of bullets launched by the enemy. Speed isn't any faster than on 8-bit versions but the game is colourful with nicely detailed graphics.

OVERALL 84%

AMIGA

£24.99

Near enough the same in graphic style as the ST version, and the closest to the coin-op original. This is the best Hi-Res implementation, with speed greater than the ST's, although the music and sound effects are similar - no more than average. The score-keeping here is parked across from the ST - and it sounds like it.

OVERALL 85%



• Put back in your fly straight into the danger ahead (Spectrum screen)

COMMODORE 64/128

Cassette: £9.99

Diskette: £14.99

Chris Butler's Space Harrier influences the 3-D sections of Thunder Blade - hence its fast action. Unfortunately, presentation is disappointing with graphics heavily relying just in the look down sections and colours dull. Slightly irritating in movement as your helicopter remains at a set speed for the first two sections of each level, but it remains playable despite all this.

OVERALL 65%

OTHER FORMATS

A PC version is scheduled for a March release priced at £24.99.



• By thunder, this young blade look like he'll see us through its victory

"High level of gameplay with visual and sonic quality to suit the host machine"

VERSION UPDATE

HELLFIRE ATTACK

Ballytech

Amiga: £19.95

Commodore 64/128: Cassette £5.99 Diskette £14.99

Spectrum 48/128: Cassette £5.99 Diskette £14.99

YOU pilot a SuperCobra light-attack helicopter, sitting against an unknown enemy. Your rotary cannon fire automatically as you fly about a 3-D landscape—enemy aircraft and missiles approaching. More rotative weapons and laser-

guided Hellfire launchers leave missiles, a supply of 40 available on each level. Your SuperCobra can enter turbo speed, allowing you to fly momentarily upside down to avoid enemies.

The graphics on the Amiga are



► The Spectrum's best bomber is often a consolation for inferior aircraft/missile approach



—Remarkably similar to the MS-DOS, the 684 version is the best of the three: identical in definition to the ST original, but use brighter colours, even more enemy approach (transit too) move faster.

The real surprise is that the 684

version is also very similar to the ST, having equally colourful and nicely shaded ground features that are plotted for reasonable 3-D definition. Sprites are abstract and near your seat, but generally graphics are commendable.

The Spectrum is surprisingly sturdy, and although amongst the monochrome there is the addition of a large bomber, the display gets confusing, and it's difficult to spot enemy activity.

On the Amiga, the title uses ear-splitting, similarly to the ST, but has additional instruments and good sound effects. Dramatic 684 music is suited by a nauseating death angle. 128K Spectrum users can enjoy numerous heavy metal title music and loud effects.

AMIGA: OVERALL 93%

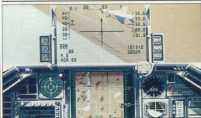
COMMODORE 64/128:

OVERALL 58%

SPECTRUM 48/128:

OVERALL 44%

ATARI ST: TEMB03 92%



VERSION UPDATE

Eagle eye take control

FALCON

Microsoft

Atari ST: £34.99

PC: £34.99

MIB006007% award winning 3-D simulation makes its debut on ST and Amiga and re-emerges

on the PC.

Falcon covers twelve ground strike missions against 5400 cities, communication centres, railways and bridges. These 5400-27's can be up in the air at any one time to

give your F-16 something extra to blow about.

The PC version is just an extension of the existing game but with the addition of 68480 cores. This development gives Falcon more impact, adding the final touch of realism to a very decent flight simulator. Falcon is best played on a 286 or 386 equipped PC. Anything less and the action slows down considerably.

The ST version is a complete rewrite, with not only a staggeringly fast screen update but a more use of earth-toned colours in

landscapes that create realistic settings and give the game an atmosphere lacking on the PC.

Falcon features near-perfect realism of flight controls and plane performance. Unfortunately the absence of height is reducing your ability to see minor details, buildings and even wingtip poles from 70,000 feet. A small point, but one which should have been rectified during the programming stage.

Both versions feature mission play, the ST also allows for link up to Eagle Missions and Amiga, furthering the game's possibilities.

On the 1 Megabyte ST, a Disk Run option allows you to review combat and learn from your mistakes — the PC has this option already installed.

Falcon provides hours of entertainment for devoted aircraft pilots. There may be a lack of long-term challenge and the variety of play isn't as deep as Microsoft's previous, but it's got plenty of fast flight simulator fans, professionals and to the mass, very happy.

ATARI ST: OVERALL 81%

PC: OVERALL 78%

PC: TEMB06 79%



FFF FOURTEEN

AFTERBURNER

Activision

The Grumman F-14 Tomcat – capable of Mach 2.34 at height, armed with the longest range air-to-air missiles in the world and the US Navy's premier carrier-based fighter. Sega – Japan's premier importer in producing top quality coin-ops. Activision – one of the most successful software houses in the UK. These three leaders in their field join forces to bring you home computer conversions of the 1988 top grossing coin-op – Afterburner.

Afterburner stormed its way into arcades around the world and became Sega's biggest selling machine to date. Featuring three magazines of superlative graphics, sound and heart-racing action, how could Activision be expected to convert it to home computers?

For those who failed to notice the blarney promotion for the game, it is a tight-combat shoot-em-up set over 20 levels. Your F-14 is ready, waiting and armed



with unlimited cannon shells for close combat and a lock-on fire-and-forget missile system. To destroy MiGs, lock on target, squeeze the trigger and watch your missile heat-seeking home.

Through war torn seas you'll fly the F-14, taking on, and hopelessly defeating, a seemingly endless enemy force of fighter planes. Enemy craft and a salvo of heat seeking missiles rush toward your plane in an attempt to stop you – it's a case of avoid or die!

One MIG-hell

The basic theme is dodge enemy missiles, launch your own and sur-



At last, here's a game that destroys enemy planes when they're protected by huge, square fireballs (IBM screen)

vive to the next level. Added to this mayhem are cannons to negotiate – hit the sides and your mission ends! – an explosion and...

All six stages you start in mid-air and then land at several airbases to top up your 'fuel' meter. Piling out of missiles is not a good idea.

Afterburner may not seem awesome from the plot – in fact the coin-op success comes from the incredibly fast action and marvellous graphics quality. Add to



Ah, yes, you don't have to destroy this big mother; it's here to defeat you

COMMODORE 64/128

Cassette: £9.99

Diskette: £14.99

If you can put up with the fairly adequate graphics, confused play and at times frantic presentation, you may find a fairly playable game. The worst feature is the presence of character blocks around missiles and aircraft when they pass over the ground – such obstacles haven't been seen for at least five years. If you're desperate to waste your money, give this version of Afterburner a whirl.

OVERALL 20%

ATARI ST

£24.99

With a potent software programming pedigree, 16-bit versions looked set to be superb – they're not. There is no impression of high speed, confusing graphics make firing and dodging missiles tricky, and mystifying jetty plane manoeuvres kills all emotions of being there. Graphics feature primitive hunkies and unreal runways but radar towers and trees are nicely detailed (unfortunately you'd have time to admire them). Urgent visual messages are included but they add little to play.

OVERALL 47%

SPECTRUM 48/128

Cassette: £9.99

Diskette: £12.99

Such brutal may have had many a sleepless night when it came to converting this to the Spectrum. Those sleepless nights have paid off in producing a game of thorough enjoyable playability. It may not look much with its mainly monochrome display, fast moving but limited ground graphics and narrow screen width, but it incorporates gameplay to match the arcade machine and is just as much fun to play – amazing!

OVERALL 83%

gameplay is limited and can even become negative.

Ironically, home computer conversions have had to make graphics a secondary priority. The most important requirement was to feature the simple gameplay of the coin-op.

OTHER FORMATS

Afterburner is soon to be converted to the Amstrad (Cassette: £9.99, Diskette: £14.99), Amiga (£24.99) and MSX (Cassette: £9.99).

"A case of avoid or die!"

THE AMAZING AMIGA...

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MPS 1200P

MPS 1200P

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PRINTING RESOLUTION	1 dot/s
PRINTING DIRECTION	Bi-directional, with optional feed movement
PRINT FORMATS	Microdot 300 dpi (highly compatible with the used in M74-UP/Prose)
LINE FEED	— 100 cps (10 characters/s) — 100 characters/s — 100 characters/s — 100 characters/s
CHARACTER SET	— 100 cps (10 characters/s) — 100 characters/s — 100 characters/s — 100 characters/s
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THE GAME

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242

AIR-1

VERSION UPDATE

High-tech sneakers

F-19 STEALTH FIGHTER

MicroProse

PC: \$24.95

WITH near-perfect timing, MicroProse has released the eagerly awaited PC conversion of the 1988 video game *Stealth Fighter*. One of the best F-19 simulators of the last few years, the original MS-DOS Stealth Fighter "the game is extremely tough."

With its touch-screen technology, the F-19 Stealth Fighter simulates the flying of the craft actually designed for F-117A in a number of combat situations around the world.

It's not just the graphics that are the heart of the game. Flying into the heart of enemy territory, hitting air targets and making it back safely takes skill and strategy.

Enemy fighters are out looking for trouble, SAM sites are searching for intruders and enemy radars are the constant alert. On higher levels, with larger air forces and the almost real Chinese Eastern command to take out as many air and ground targets as you can, the game is tough.

On the CD-ROM, Stealth Fighter adds a near-perfect flight simulation, simulating through energy, motion, drag and acceleration. On the PC, it's all so much better. Thanks to MicroProse's proprietary "enhanced graphics" technology, the game, with top-notch presentation, the programmers have also added functions to bring up external cheat plans and maps, and

and even a novel tactical view where the player can look through the eyes of the enemy target. Another cool touch is the automatic refueling system. For bonus, work and play.

The graphics, however, don't show flight simulation yet, but in terms of attention to detail, they have a note in the water, which take off and land from various airports can be seen, which need to be seen in the cockpit, and report from various planes.

On the negative side, there is a lagtime and, other than a few, not much of the video, which amounts to little more than a few notes.

The game has been designed with 68000 386-processors in mind. A 386-based PC may not be the best copy and updates are a little slow, compared to CD-ROM speeds, but the volume of mission scenarios is more than enough to keep you busy when things get busy.

PC: OVERALL 89%

COMMONCORE 66/100
TGM004 50%

THE PLANE



2035

3K

2K

1K



The secret realised

That was the Stealth Fighter has entered secret world of military technology. It wasn't until November 19 of last year did the USAF confirm its existence. The tough, angular, black F-117 has, without revealing its secrets, been the subject of intense media scrutiny. Now, however, the aircraft's existence has been confirmed and there is a computer game based around it. It's not velocity alone for sure.

Just 50 already in operational service based at the 48th Tactical Fighter Wing, the F-117A has a top speed of 1,000 mph, a range of 1,000 miles, and a maximum altitude of 50,000 feet. It's officially black, but it's not really. It's a computer game based around it. It's not velocity alone for sure. It's also a game that is a real, albeit somewhat limited, test of the aircraft's capabilities. It's not velocity alone for sure.

It's not velocity alone for sure. It's also a game that is a real, albeit somewhat limited, test of the aircraft's capabilities. It's not velocity alone for sure.

physical shape of the aircraft, and the way it is designed to fly. It's not velocity alone for sure. It's also a game that is a real, albeit somewhat limited, test of the aircraft's capabilities. It's not velocity alone for sure.



active role while the USAF, based at the 48th Tactical Fighter Wing, the F-117A has a top speed of 1,000 mph, a range of 1,000 miles, and a maximum altitude of 50,000 feet. It's officially black, but it's not really. It's a computer game based around it. It's not velocity alone for sure.

It's not velocity alone for sure. It's also a game that is a real, albeit somewhat limited, test of the aircraft's capabilities. It's not velocity alone for sure.

R I

: R I :

: I R J :

: D C V :

SPEED 334 KMH
RANGE 0.9 KM
ESC 90

MIG SEASON

F-16 COMBAT PILOT

Digital Integration

Digital Integration have a healthy habit of producing fine simulations (ATF and Tomahawk for example)—even if they do take an age over them. *F-16 Combat Pilot* is no exception, with nine man-years of development, a host of contributions by USAF F-16 pilots and the expertise of aviation expert Bill Gunston behind it.

Although training sessions are available for you to practise your flight and landing techniques, increased enemy activity makes the temptation to go straight for a mission too strong to resist.

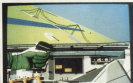
Enemy MiGs pose a threat in your territory, and ground forces require air support against heavily armed tank formations. There is also the option to go deep into enemy territory to take out supply

lines and installations and undertake reconnaissance missions for up-to-date information on their movements.

Once five successful missions are under your belt, Operation Command commences, where skills learned are put into deadly effect against the enemy. Your time is divided between protecting allies and going on the offensive.



► The mission screen—loaded for battle?



► With radar and weapons out, taking on the tank could be a trouble maker

Mission in action

Along with standard flight controls (slightly simpler than the *Deltaforce* program), *F-16 Combat Pilot* pulls-out all the stops to provide depth and game complexity.

Features include re-entrant screens, plane repair facilities, four other Falcons to command, save/load position option, a dual-ST dogfight mode, three types of enemy MiG, over 1000 targets,

progressive skill levels, weather effects and intelligence reports.

And to really jibe the pressure on, there's a computing strategy element, whereby mission results (good and bad) have a long-run effect. The performance of other Falcons and ground forces are taken into account when shaping a war-winning strategy.

Play *F-16 Combat Pilot* and you'll find out what multi-screeners mean.

ARMED ST (24.95)

Featuring very smart peripheral screens, *F-16* couples refresh-rate graphics with solid 2-D buildings and mountains to good effect. Presentation is excellent, although not as glossy as *Falcon*. Screen update is fast and there's as much atmosphere to the game as any simulation yet seen.

OVERALL 94%



PC (24.95)

In-flight action may not have the graphic definition of *F-16*, but the presence of long-term game strategy gives *F-16* considerably more depth and challenge. While *EGA* is used well and graphics are as distinct as the ST game, the colours haven't quite got the same sparkle about them.

OVERALL 93%

OTHER FORMATS

Experience *F-16 Combat Pilot* soon on the C64, Spectrum and Amstrad (Cassette £14.95/Disquette £19.95) and Amiga (£24.95).

"Makes the temptation to go straight for a mission too strong to resist"

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NOTES



The rates for money offered to the state of Georgia is reflected in the following table featuring the 1997 and 1998 values with 1999 data. The table also compares money received with a full or 100 percent state share as well as a five percent state share and is broken by metropolitan area. For more information, see www.doe.state.ga.us.

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† χ^2 -test; $p < 0.05$. ‡ χ^2 -test; $p < 0.05$.

1982-83, and 1983-84, which is the first time since 1969-70 that the number of students has declined. The decline is due to a number of factors, including the fact that the number of students who are not taking the exam has increased. The number of students who are not taking the exam has increased from 1,000 in 1982-83 to 1,200 in 1983-84. The number of students who are not taking the exam has increased from 1,000 in 1982-83 to 1,200 in 1983-84. The number of students who are not taking the exam has increased from 1,000 in 1982-83 to 1,200 in 1983-84.

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Illustration by Alex Suprenant and the
F-19 is a prize. Hurry up with the
poll, guys! I want to play the F-19
Stealth Fighter!

The future of flight has been revealed — after seven years of secret missions, the United States Air Force finally acknowledged the existence of their F-19 stealth fighter last November. Officially called the F-117A, this state-of-the-art aircraft is almost undetectable by radar and designed for fast, lethal attacks on ground and air targets. And now MicroProse, masters of computer flight, have completed the PC simulation, *F-19 Stealth Fighter*, which costs \$69.95.

To celebrate this top-scoring game, MicroProse is offering a PC with monitor and a copy of *F-19 Stealth Fighter* to the winner of this competition. All that's required to answer the questions is a careful reading of our review feature, starting on page 62, and a lot of research.

But because the prize is so big, and hundreds of readers are bound to be competing, we're asking you to try a televiewer as well.

Entries should be sent on a postcard or the back of a sealed envelope to **FLYING WITH MICROPROSE COMP, 100M, PO Box 19, Ludlow, Massachusetts 01033**, to arrive by February 18. Usual rules as printed on the contents page apply.

Thanks to Damien Clarke for putting together the questions.



CONFRONTATION: COIN-OP

This month Robin Hogg journeys to the heart of Manchester to plug coins into *Power Drift*, *Ordyné* and *Cabal*. Thanks to Alan at Sunspot for letting the him loose on the machines.

SLOT NEWS

FOLLOWING (as from Double Dragon and Gauntlet, Operation Wolf is to appear on the Nintendo Playchoice 10. As Nintendo don't go in for list games on their machines Operation Wolf can be played via game slot peripherals. Check it out.

Further to the review of *Power Drift* this month Sega have brought out the *Power Link*, a system allowing two players to race against one another in the *Power Drift* setting - a double Final Lap perhaps. Whatever, it is it's a more logical system than the Super Sprint wonder system.

POWER DRIFT

Sega

A I test the true follow-up to Out Run Following the fast and highly successful success this aerial and space oriented, with Afterburner, Thunder Blade and Galaxy Force, *Power Drift* puts you back in the well worn driving seat. This time there are none of the pleasures of F1 racing, in your turbo charged buggy this is one bare chasing, teeth rattling, rough ride all the way.

Starting off with the selection screen where a budding boy racer can select a persona to sit in the car (including a female driver - is this a first?), following the selection screen we go down to the start point and the other racers already away.

The mechanics of *Out Run* come flooding back as the race begins, but *Power Drift* is anything but sedate - buggies run each other, barrels all over the place and even drive off the road, weaving through trees, signs and other obstacles. These buggies are tough little and only a severe bombing or humiliating accident off sky-rim tracks will bring your coupled-up lot.

The *Out Run* influence plays a major part in this technically unoriginal game, although *Power Drift* is significantly better

not only in style and presentation but also in variety with 35 courses to race around.

Those of you experienced in *Out Run* should find the first few tracks

a double but the demands are even higher. With seven other racers going equally fast and some vicious, roller coaster ride circuits to follow, it can get quite tough to win.

As usual, *Power Drift* has all the typically - Sega - professional effects, not least of which are the superb layered graphics rubbing past at phenomenal speeds. There's so much to see (or hit), as

the case may be it seems a shame that much of the brilliance of the graphic designs is lost to the games speed.

I can't imagine *Power Drift* being as great hit, the price of playing especially in its Deluxe form together with its similarity to *Out Run* means that it doesn't offer much that's new. And up against Chase HQ, it doesn't fare too well.



Watching from a crowd of the car as the lady driver accelerates away

ORDYNE

Namco

F ollowing a recent patching of the ways, between Namco and Atari we now see the former bringing out games under their own name.

Ordyné is one of them, and although it may not win any points for originality it does show just how good Namco are at producing games.

• The highly original rotating wall of rocks - just fiery? What more could you want?





1. Almost all of the killer turtles — all enemy with a barbed in the

CABAL

T&E Corporation

The (paid) name Operation Wolf, Cabal combines together many of the ideas gleaned from T&E's smash hit-up in one mediocre package. The

setting is four regions of enemy territory with one or two weapons running around the foreground. Enemy soldiers, tanks, helicopters and planes run on to-line from up and back it to them. Destroying the buildings sets (graveling, machine guns and bonus points thrown at the player) — called

them and key weapons to get more of the evil empire army. For some very odd reason upon completing a level the warriors leap up and down and do the weird dance you've never seen as they run off into the distance. Most peculiar.

On the plus side the presence of a teamwork including dual player mode gives the game a little more appeal and the use of a joystick makes it satisfying to play — but without good graphics there's not a lot to be said about Cabal. It's good for a couple of plays but ultimately it's not a patch on Konami's *Demolition* or *Operation Wolf*.

2. There's you in the foreground, being the most of the best-approaching tank



3. Almost there — before they drop the bomb on you



Your beloved lady friend has been stolen by some thoroughly randy lines and whipsnappers of miles away. Hopping on a faster cycle you zoom off to rescue her and vanquish the enemies.

Mr. Wizard (and his friend) makes fever through countless horizontally scrolling levels firing missiles and dropping bombs on the familiar olive meadows and defenses below. Watch out for the deadly windmill. The rotating mass of miles, the Game style (most of the 4-7 type style) and even a Wheel of Fortune (what no bonus wheel?) — this hotpot of game ideas makes *Cabal* one very odd game.

To add to this strangeness, those scurrying disguised as sheep turtles with "Game" in place of one (most) foot rest — within are goodies to buy, speed-ups and mega-weapons to keep you going — buy what you want and get on with the blasting.

Cabal may not be one of Namco's greatest but it's got enough to make for an enjoyable game. It's just a pity that it's let down by decidedly average graphics.



OPERATION NEPTUNE



The tranquil surface of the Pacific Ocean hides the battle of wits taking place in the world's last unexplored territory. A perfect hiding-place for a determined enemy, or is it? Your jet-bike and technologically advanced bathyscaphic should help, but there are still the enemy bases to destroy, lines of communication to be snipped out, and the natural predators of the deep just waiting for a tasty snack at the first sniff of blood. So check your oxygen supply and dive, dive, dive...

Atari ST, PC, Amiga £24.95

CD-ROM, Amstrad £14.95 (disk), £9.95 (tape)

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INFOGRADES



ROB STEEL'S GETTING ADVENTUROUS

STEEL SHAVINGS

After wringing an almost total lack of adventures available for older last month, I now find myself relatively frustrated with guests to peruse. So, it's time being what it is, this month's column has been reduced to a single page, sufficient space to feature only one adventure.

To be as fair as possible, I chose the first one to drop through my semi-redundant letter box.

Now please excuse me, I have to take Mr Frost out to lunch every day for the next four weeks while we discuss that issue's adventure pagination . . .

THE GRAIL

Microdeal

ADAM ST: £39.95

After struggling for months to get the hang of STAC, Microdeal go and complicate my life to an even greater degree by threatening to release their own adventure-writing utility, Talepin (£49.95). A different style of generator to STAC, it offers totally mouse-controlled games, full-screen graphics and digitised sound. To introduce the utility, Microdeal have released a Talepin-created adventure, *The Grail*.

The inhabitants of Kallor are suffering from a strange, alarming disease. The only cure is purported to lie in the Holy Grail. This fount of all good may only be approached by a pure heart, which, although you may not feel deserving, is yours.

Good as it is, indeed, you and your trustworthily servant, Bilbo, set out to find the Grail, and with it, attempt to release your homeland

from the deadly disease. To succeed, you must face great danger, endure many tests, and risk falling foul of the very plague you intend on destroying.

You and Bilbo begin in the enchanted forest on your way to Dorset's Coast.

Once there, you discover that working on your own is advantageous — you need to lose Bilbo, when he's safety quaffing



It's the old standby: a flying dragon — just like that — but remember to show mercy to the end

up at the inn (little bit there), you are free to explore the land and, when you find the Grail, converse with it. During your first encounter with the fount of all good, it will probably tell you that you can't obtain its powers unless you are not pure — you don't possess the three necessary attributes: strength, mercy and charity.

Time then exposes the land in an attempt to improve yourself — returning to the forest once you have the cure potion is a good idea.

When all three attributes have been earned — show mercy in some places and spatter guinea flocks in others — the Grail informs you that although you're doing very well, you must go to the heart of the forest to the world of instances to continue your quest.

Screen screen

While in the forest, wander around a bit and help any character you may stumble across. A pit that leads to a network of tunnels is not hardly find — if you've got the light, crawl into it. Wait, and mark a couple of moves takes you to the Grail, the end of your quest and a threat from Bilbo that there may be a sequel.

Depicted graphically, screens display an odd and unattractive style. Trees are either tall thin red trunks or bulbous, swirling acorn and foliage — characters appear as if painted by a child.

Digitised sounds in the form of screams, groans and laughter abound and momentarily distract from the slow gameplay — music would have been a better use of memory.

Music accompanying *The Grail* suggests that completing the game should take some hours. This, I feel, is not because the game is so absorbing, but because of the time taken for every screen or action during its execution. I finished the adventure after only a few hours (proving its lack of challenge) and, although each screen is a disappointment, there exists an odd compulsion to carry on and see what happens next.

It should prove interesting to see what a talented writer/artist can do with Talepin — the utility has potential and I look forward to casting an adventurous eye on it.

**ATMOSPHERE 45%
INTERACTION 40%
OVERALL 44%**





PLAY IT ON THE LINE BROTHER



Reach out and shoot someone — that's the latest message from technologists who promise an incredible future of long-distance games. Richard Henderson reports on the BDN system, soon to arrive.

Concentrating hardily on the monitor screen, you lock your sights on the alien battleship ahead. A split second before you unleash plutonium death upon the foul beast, it veers sharply off to one side with an unexpected burst of speed. Shrinking in terror, you huddle into a conveniently-placed planetoid. Your M4.4 Death Warrior explodes in a cacophony of alien digital sound as you flee at the double.

The screen dissolves to show the orbital base of your opponent, some 3,000 miles from you. "Ole, mutant pig!" he exults as you voice rebellion. Vanquished, you reach for the on switch.

It may be the future, but it's not distant. This is just one example of what to expect when the new worldwide telecommunications system, BDN, finally gets going. The foundations of BDN (Integrated Services/Digital Network) are being laid right now, and when it is completed our lives will be drastically altered.

BDN provides the technology to transmit voice, data and video all over a single cable at the same time. It could give us videophones and photo-quality videotex services that make Fritex look about as impressive as a TQM T-shirt. But BDN needs some pretty nifty hardware to convert it, so British Telecom (BT) are currently installing the backbone of this country's BDN system — the System X Digital Exchange Network.

BT are replacing all their antiquated analogue telephone exchanges with glowing, computer-controlled, interconnected digital exchanges, connected to each other via high-capacity optical fibre cables that can handle massive amounts of data.

Currently, around two digital exchanges are installed each day, most of them replacing old technology systems. And BT have just over 6,000 exchanges, altogether, of which some 1,600 are digital, says BT's Senior Technical Press Officer Derek Wilson.

Predictably, businesses have been the first to benefit from the improved service, which works with the old-fashioned copper wire phone lines as well. If they subscribe to BT's digital system, they can now transmit data at 64k per second (sometimes called 64 kilobits), and enjoy goodies such as high-speed fax and much better video communications. Calls can be set up much faster than before, the system is less prone to faults, and it's easier to fix if something goes wrong.

Greater data

That's all very well, but what are the implications for entertainment when all this technology flows into the

home? Well, a lot of modem manufacturers are going to go out of business, for a start. Because the phone network will be fully digital, computer data will no longer have to be converted into analogue form (see *Isa Tele Technology* for transmission over the phone lines - you'll just plug your computer into a keypad and wait and go).

The new network will transmit data at much higher speeds, using analogical form codes, a 500,000-words telephone directory could be transmitted between two computers in under five seconds. Some fear that it could even put cable TV out of business. And ISDN will make 'play-by-modem' games (as well as most modems) to play them sophisticated beyond our wildest dreams.

Imagine playing an incredibly scaled-up, multiuser version of Nintendo's classic *Street Fighter*. As you launch from the space station, the

STAY ■ AT ■ HOME

Playing games could become a way of life thanks to ISDN - because the new technology will simply give us more free time.

Think about it: if you could do most of your work at home, transmit it to a central location, and confer on the videophone with your colleagues (or teachers), would you subject yourself to several hours a day of the same lecture that most students can't withstand?

Though free time could be earned not only from the home - 'teleworking' - almost all could be managed so that workers would only have to commute for a few days a week.

And a recent survey by market giant Industrial Relations Services showed that 25% of British employees would prefer teleworking.

mainframe computer controlling the game becomes a movie-quality launch sequence to your screen. You flash into space.

When you select your destination on the star chart, the mainframe consults its library of data on all the star systems in the game, and sends you a page or two of text and graphics depicting the planet and its inhabitants.

Consulting this, you're suddenly excited to hear how the planet looks the side of your ship. Screaming like a fool in triumph, you switch back to the videophone and engage in real-time combat with the planet's other player as high-quality digital stereo sound is beamed into your home and bounces around you.

As this is entirely possible with ISDN, and it's just a logical progression from today's games.

Fancy something a little less structured? Connect to your local library's computer and browse through the *Encyclopaedia Britannica*, *Gilgamesh with a Sidekick*. This, like the mainframe's data in *Star Wars*, is stored on optical disks - it's optically similar to CDs, which store data beams to store and read huge amounts of data from a small disk.

ISDN will be able to put whole libraries in your living room, and you won't have to worry about running out of space for the drinks cabinet.

Shipping by computer suddenly becomes practical. Thanks to ISDN, films, pictures or video demonstrations of new chemicals can be beamed directly to you, and you can make your selection instantly - no fumbling about with catalogues and order forms.

BT aren't keen to quote any prices regarding ISDN equipment or charges, but it seems ISDN will be the very new technology, very expensive at first, but cheaper when it becomes mass-market. Who knows, even *Amstrad* could get in on the act...

So much, so soon?

Of course, as this won't happen overnight, we won't suddenly wake up one morning to a full ISDN system. For example, videophones - which transmit pictures as well as sound - won't be a familiar sight for a while yet, as only optical fibres can cope with the enormous amounts of data they'll generate.

And though the technology for many ISDN applications exists right now, it won't be commercially available until the network is widespread. Building a videophone is relatively easy. Replacing the planet's telephone system is not.

The BT plan to have ISDN installed in most British telephone exchanges by the early Nineties - so it's not too soon to start planning this.

TELE ■ TECHNOLOGY

Traditionally, information has been sent over the telephone system in analogue form - the voice or data from a modem is translated into an electrical signal, whose frequency varies as the sound changes.

This system was fine and good in the days when the only thing you saw the telephone system was the human voice, but nowadays people want to send data as well, and the analogue system just wasn't designed for it. There's too much noise, and though we can hear a voice through a crackle and pop, a computer gets confused.

ISDN offers a solution: digital communication, which handles data and the users may call a computer or it may send that information is broken down into binary form (0s and 1s), giving perfect accuracy and much less risk of interference and distortion than analogue.

This speeds up the transmission of computer data (which is a bonus anyway), and gives beautiful digital sound for voice transmission.

The light fantastic

The physical medium of transmission is also changing. Telephone cables used to be copper wires, which allowed information to fade or become distorted over long distances (remember how international calls used to sound?).

But now the world's telecommunications companies are getting into fibre-optical fibre cables, made from thin flexible strands of glass. Digital signals are converted into light signals, fired along the cable, and reconverted to their original form at the receiving end.

The signals hardly fade at all, and because no electrical energy is transmitted, they are completely safe and immune from electromagnetic interference.

Alongside satellite and microwave transmissions, optical fibres will help to make ISDN a reality.

"Ingame in real-time combat as high-quality stereo sound bursts off around you"



VOTE FOR THE BEST IN 1988

Computer Leisure Awards

For the first time ever, you will be able to join with the readers of many other British magazines to decide who and what was best in 1988. Awards will be made to software producers resulting from your voting through, this, your own magazine, for what you considered to be the best games you have played on your computer during the past year.

Many other magazines are carrying this voting form. It means the results will truly be democratic, and therefore really mean a lot to those who receive them.

The votes will be collated by an independent company, to whom you should post your voting form, and the awards will be presented at the Computer Leisure Industry's 'get together' — Computer Arena — in March 1989.

So, simply fill-in the voting form below, cut it out (or photocopy it) and send it to:

GAMES OF THE YEAR
MICHAEL BAXTER
SOLUTIONS PR
2 WELLINGTONIA COURT
VARNDEAN ROAD
BRIGHTON BN1 6TD

COMPUTER LEISURE AWARDS 1988 VOTING FORM

Closing date: 28th Feb/89

1) Please tick the computer format you are voting for:

- | | |
|------------------|--------------------------|
| AMICA | <input type="checkbox"/> |
| AMSTRAD CPC | <input type="checkbox"/> |
| ELECTRON | <input type="checkbox"/> |
| COMMODORE 64/128 | <input type="checkbox"/> |
| PC COMPATIBLES | <input type="checkbox"/> |
| ATARI ST | <input type="checkbox"/> |
| SPECTRUM | <input type="checkbox"/> |

2) Please state what you consider to be the BEST GAME OVERALL of 1988:

3) Which Software House do you choose as being the most consistent in producing high quality computer games during 1988?

4) Please name your choice of best game (from the format ticked above) of 1988:

- | | |
|---------------------------|----------------------|
| 1. Best ARCADE game | <input type="text"/> |
| 2. Best ADVENTURE game | <input type="text"/> |
| 3. Best STRATEGY/WAR game | <input type="text"/> |
| 4. Best MUSIC with game | <input type="text"/> |
| 5. Best USE OF GRAPHICS | <input type="text"/> |

Name

Address

Postcode

ROBIN HOGG'S PLAYING TIPS

YOUR GUIDE TO BETTER GAMING

First off this month are a couple of tips to help you get through the *Barbarian of Dosin* Palace's last-up sequel to *Barbarian*.

• **BARBARIAN II** (C64)

■ **THE LIVING IDOL.** Use wall puzzles to dodge bolts as they don't drain you of energy. To progress reach the end and run at it so you push it off screen. Duck high bolts and kick low bolts.



■ **THE GREAT DEMON.** Move towards the demon so that he starts a continuous punching movement. Just as far has his head almost outstretched, do a

flying neck chop, which should hit him. This way he will hit you back. In fact, where any other time or position will usually result in a film rewinding for him. Don't forget to jump the hole.

■ **DEATH.** Move in front of the corpse on the wall covering it as much as possible. When a magic is about to stop do a flying neck chop - each time you manage it you lose half your current energy. If you succeed stand back and watch the ending.



• **BARBARIAN** (C64)

■ **Map.** Use the locations of neutral, skeleton, bones, where you can get repairs, weapons, and energy.

- **Map.** Note the location of initial discontinuity - position (84,21,18 - G-Jane) - an same life-supporting power: there are Guardians of Knowledge.
- **Use.** Use the sword to mind meld with them to discover data on systems that contain useful objects.

a clue how to save the world! Have mind of super heroes have to start somewhere. So TGM more willing to keep a reader is need has got the computer (with 100% completed) solution to the three-game. (Stuck in the *Joker* game? Well we haven't got that far yet so



- **The Hut.** Use the device for greater and more to be found on Central (88,19,80).
- **The Crystal.** Use the Crystal at Kurni (88,27,80) reduces drain on engines.
- **When** tearing down to planets always take three other members to subsequent against dangers.

• **BARBARIAN**

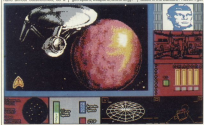
(Spectrum/C64)

Stuck in the *Barbarian* Haven's got

you'll just have to wait.

Below in the room in the *Barbarian* that contains broken machines use the tool. Insert the *Barbarian* into the slot above. Now go outside and keep going right until you come to a ladder. Climb this. You should find some rope. Collect this. Once on the rope keep going right until you find a ladder going down. Use the *Barbarian* function to unlock it. Through the door it is a key. Go to the left and use this. While you are exploring you will come across a Games Disk and a dart, take these. Use the rope inside the room called Two half's. Now climb up the rope and collect the magnet and use it. Now throw the dart at the picture of *Barbarian* on the wall and a coin will be revealed. Take this. Go back to the left. Climb another grateable onto the roof. Go right until you find a ladder. Climb down this. Now proceed right until you find another ladder going this and keep tearing right until you come to a dead end. Here you should find a torch. Take it. Now climb back down the ladder and go right until you find the mansion. Go forward, yet.

■ **Proceed** to the screen just past the mansion and collect the door key. Now return to the mansion and use the pass. Inside it is dark so it's time to use torch. Now explore the mansion and find the room with a TV and video. Put the tape into the video and a 4 should



appear on the TV screen, it another seven times in a flight of stars. (Doing these and unlock the door at the top with the door key. On this level there is a door labeled 3 steps to Hell. Go through the and turn to the right. Eventually you will come to a room full of computers. Now just use the door to complete the first game.

● MESSAGES

(Group)

● While playing the game get a



friend to type in **JOINTUNIONHUTTERBASTARD** and you will be given a full quota of weapons as well as shield points. This can be repeated at any time during the game to restock your arsenal.

● CREWME

(C64)

● Type in **KALESPER** on the opening screen and the Thelard logo will flash. You now have infinite lives.

● THUNDER BLADE

(C64)

● Type in **CRASH** on the title screen. From now on pressing the UNDO key will take you straight to the next level.

● VETERAN

(C64)

● Here's a quick one. Simply press the HELP key to progress to the

next level. Easy when you know how.

● GALEY THOMPSON'S DLYNDS CHALLENGE

(Spectrum)

● Before you do the training, select the transportation option. If you've got one don't use it and start the game off. You should score 60 in the dummies, 180 in the air ups and 180 in the squats. After this you must retrain the legs, press 2, 3, or 4 on the robot, and load in day 1 and do the same in the 4th.

● PUMP ROOM

(Spectrum)

● When you start the game, go to the right hand side until you are safe to go up the first ladder. Then go up it, knock in the two coals, go up the right, put in the coal, wait until it's safe then quickly go along. Put in the coals, then if the force catches you go right and hit the big monster. If it hasn't, walk left and you will fall down.

● **GRIPPING TAPE**. Try not to get stuck at the bottom, if you are at the top you can get down no matter what way the lift is going. If it is going up, step on it and wait, then you fall down to the next level. Often the ghosts can't go through the lift but sometimes - wait a second's time thinking about.

● STANLEY MOUSE

(Spectrum)

● Here are some hints on the sub games courtesy of Colin MacDonald from Dundee.

● STANDSTILL

(Atari)

● As soon as you start the game, bring the **SCAFOLD** to a complete halt, select floating right then

● **PURPLE MATE**. Don't collect the fuel until you are safe to go up the first ladder. Then go up it, knock in the two coals, go up the right, put in the coal, wait until it's safe then quickly go along. Put in the coals, then if the force catches you go right and hit the big monster. If it hasn't, walk left and you will fall down.

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● STANLEY MOUSE

(Spectrum)

● Here are some hints on the sub games courtesy of Colin MacDonald from Dundee.

● STANDSTILL

(Atari)

● As soon as you start the game, bring the **SCAFOLD** to a complete halt, select floating right then

cause the game and type **WINE ON A MESS** from 505 (unlocking the special and press 1. If you've done everything correctly, the shield, laser and fuel displays will drop and you'll be rewarded with infinite fuel, shield and laser power. Now if you press A you will get a full complement of missiles, bombs, an energy cube launcher and even the neutron bomb!

● LAST MINUS

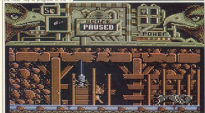
(C64)

● Completing System 3's epic **Blackboarder** is no easy task. So here are the solutions to the first four levels just to get you on your way.

● **LEVEL 1 - CENTRAL PARK**. Go through the curtain and punch the flashing yellow box to reveal a map on the stage on the first screen. Drop through the trapdoor and you will be under the stage where you should find (bottom left corner) a key. Take this. The manhole is in two parts, both of which are in separate ladies toilets. Just enter each one and the pick up action is collected there. Pick up the hamburger on the hamburger stand and use it to stimulate your memory. There are some shutters in a row between two benches on the screen before the juggle. The juggle can be passed by somersaulting. Now get the map on the screen after the juggle. Climb up the rails on the screen with the map, then cross over to the next screen and somersault across the gaps to find the shield. Remember to climb down backwards. Use the key to open the gate, then wait for the boat to drift near you on the next screen and somersault onto it. When it stops moving, somersault onto the other bank. Dodge the bees and take the right hand path then somersault onto the next screen. Try to land on the island, then push at the boat with your staff and jump back onto the last screen. This time take the other path and you will end up by another station of river bank with the boat from the island floating past. Jump onto the boat then jump to the other side and you can reach the next station of the game.

● **LEVEL 2 - THE STREETS**. Only cross the roads when there are no cars. If you have a car, you can fly a motorcycle. Enter the woman's hat and 'pick up' and you should collect a manhole key. When you enter the screen with the flashing door, hit the bug and kick down the door. Enter the martial arts shop, beat up the shopkeeper and collect the sword from the wall. Feed the drink and take the bottle from him. Take the bottle from the hoodlum who is in the room. Remember to use the key to open the manhole on the path, and drop through it.

● **LEVEL 3 - THE SEWERS**. Walk through the first three rooms, then take the right hand exit and collect the key. Go back into the last room





and jump the gap. On the next screen, slowly walk forward until you see a spider fall. Quickly follow it and exit the screen. On the next screen, use the key to open the grate and drop down. Don't go through the blue door. When you come to a set of three doors, take the middle one, then follow the path until you come to some more doors. This time take the one farthest from you. On the next screen, don't go through any other doors or you'll die. Instead, jump the rats and exit via the path. Keep going until you find some more doors and go through the door nearest to you. On the next screen, sit the get free, holding the bottle,

down the ladder, then take the right hand path and follow the path until you get to the rail cars. Wait for one to pass you, and then somersault over the line. Keep going along this path and you should come to another set of lines. These are instructions jump with your foot up the hamburger and follow the path around to the stacked crates. Walk onto the crates nearest the table and somersault forward onto the next line. Now turn and jump onto the box on the left of the screen, face right and somersault onto the little box then onto the other side. Moving on from there, you should find yourself in a room filled with

the white box to enter the 88 and go up to the next level.

• R-TYPE (all formats)

■ When collecting power-ups for the drone, stay with the reflecting lasers as not only do they cover almost all the playing area but they cut through the maze-making aliens like a knife through butter.

■ Use the drone in the most offensive manner possible. Main enemies with it, keep it in front to absorb bullets and generally use it

as they die.

■ LEVEL 2: The second thing about this level is the sheer number of tactics aliens (what else do they look like that?) to avoid about halfway through. Rather than throw the drone forward into the strong, keep it attached and reflect enemy lasers all around. Go around the fast and slow waves in a square anti-clockwise pattern and avoid it by hiding near the bottom left corner of the enemy-infested, mother alien. Then swoop over to a position just above the alien's eye and blast



to its maximum potential - you may not have it for long on the later levels. Watch out for incoming mega-laser bolts fired by mother aliens. The R-Type isn't that

easy. Just keep your fire and blast at the eye, moving up as you beat the third wave that comes along.

■ LEVEL 3: This level is devoted to the infamous 'Mega-Mothership'. Just stay cool, hug the ground and keep back using the R-Type target of the lower side gun emplacements. Don't try to move forward when you see a gap, try to keep back in the first under-side gap and keep low (minute gaps to the position should slip). Move forward at the last minute to the next gap and immediately after that move forward again, by itself forming the dome ground by its to the back of your craft. Dominate the guns and throw it into the heart of the spaceship until once another all.

• AFTER BURNER (ST)

■ Just keep performing 360-degree rolls all the way to avoid nearly everything - watch out for tail chasing missiles though as they give very little warning of their approach.

(Spectrum)

■ Fly the F-14 at its lowest height. This keeps your missile sight at just the right level to immediately lock on to most incoming aircraft.

■ In the canyon just after 11-14 down into the dark and keep long - like the coin-op just tap the space bar and right into making minute movements and getting you through it the rocky caverns.

That just about sums it up for this month. If you've got any more, checks or tips then send them to: PLOTTING. From all the usual winners: THE GAMESMAGAZINE, PO BOX 70, Cardiff, Sengapore, S20 1DB. £30 worth of software could be yours.



walk into the tank on the wall until the side in the bottle turns red. Now kill the alligator by throwing the bottle at it and go through the door to the next level.

■ LEVEL 4 - THE BATHROOM: Go through the maze of boxes on the right of the main screen and then empty your hands and go to the next screen. Climb up the ladder to the catwalk and go left, killing the mice and collecting the credit card. When you get to the end of the catwalk, go through the door and pick up a bowl of dog food. Once you've done that, you can go back along the catwalk and

bottles. Go straight down, kill the box man on the first screen, then on the following screen you should find a flashing white mouse in a box. Hold the chicken and collect the box (the mouse is the chicken). Go back to the bottle room, take the cat on the right and you should be face to face with a hungry panther. Hold the chicken and walk forward slowly until it sits up. Take one more step forward and use the push up method to turn the panther towards you. It will then take the chicken, eat it and die. Go past the dead panther to the next screen and use the credit card on

panther.

■ LEVEL 5: Providing you stay back, keep calm and upgrade the device to either three way or reflecting lasers this level should be a piece of cake. You only have to watch out for the Alien-queer machines that sneak from behind and the big transformer robots. The red alien monster is a double providing you're armed up - just throw the drone into its gale and keep firing. Within the heart of the rotating guns, get in fast, destroy the blue gun and get out fast - they have a habit of launching bullets

We could be heroes

CHAMPIONS

**Roleplaying Rules
Hero Games, \$5.95**

In the tentacles of evil are spreading throughout the world — super villains with monstrous powers, subversive espionage organisations and giant insane robot sea monsters are just some of the terrors threatening civilisation. In *Champions* you are the only person who can stop them, so don your cape, put your underpants on the wrong side of your trousers and prepare for battle!

The world of comic book superheroes and such villains is a natural setting for a role-playing game. However, it's no easy job producing a "superhero" game which incorporates a wide range of super powers from super strength to flight. King must be clever to create a system that is not only easy to use but is also not too complex. *Champions* does all this and more in a simple, comprehensive rulebook, based on the same rule system as Fantasy Hero and Justice and the peace is now to have and enjoy the joys of reporting just about every aspect of the superhero game world.

The *Champions* rules are a model of clarity. An introductory section provides an outline of what role playing in general is all about and then goes into detail about the various systems in the rules that you're soon going to begin to learn.

The first requirement is the creation of a superhero, in the form of a 50-page character generation system. It allows the hero-system rules really come into their own. Unlike most RPG's, players can't get lost due to questions about their character's life. Instead they begin with an idea of the type of character that they would like to play — perhaps a superhero with their favourite comic strip, perhaps an invention of their own — and design a character to fit this conception. A player is allowed 100 "power points" to purchase powers and abilities for the new hero. Thus a simple ability like "Invulnerable" — which allows a superhero to change from solid to intangible — requires only 10 power points, while a knock-down five power points, while "Invulnerability" will set a hero back 20 points.

For a superhero capable of taking on the most dastardly villains in the universe, 100 power points is just not enough. Fortunately for wannabe "full-on" hero players, there are more points with which to increase their characters' powers by adopting disadvantages and limitations. Limitations apply to

the use of a particular power — for instance the hero might only be able to fly during daylight hours, or an invulnerable hero might be able to use a power during both of hours and at night, while both of powers are even more fun. A hero may choose to accept a number of disadvantages, each of which brings a bonus of additional power points to spend at will. Any conceivable restriction is possible — ranging from unconsciousness (the thing to "breathe"), a young heroine who always gets in the hero's way, a hero who cannot swim and so on. A number of points gained depends on the severity of the disadvantage. A character who is restricted to flying will only get a small bonus, whereas one who loses his powers when exposed to water will do better (and his/her life will be a lot more fun).

Once the hero's character has been created, it is time to learn the basics of evil and the combat system of the various levels with such conflicts. The system is simple and fast moving with the results of every action being deter-

mined by the roll of three six-sided dice. Instead of a single "wild-card" point determining if a character lives or dies, *Champions* heroes and villains take both "body" and "flow" damage, meaning that it's possible to knock out or hurt the opponent without killing them — a nice touch to go with!

Suggestions for referees as to how to run a successful superhero campaign are included in the rulebook, followed by an introductory adventure in which the players battle the evil super organisation. My only criticism of the whole presentation is the lack of an index, but the rules are laid out in

such a sensible order that it's generally not difficult to locate a particular item.

A wide range of add-on material is available for *Champions*, both for writers, adventurers and supplementers, ranging from extensions to the system, but one of the best examples of this type of game is that you don't have to play more than the rules book and a little imagination. It's just playing a fast moving game about the future of the world lies in your hands!

Now a quick look at *Secrets to Superhero Power*, £14.95, the first of two *Secrets of Champions* supplements from Games Workshop's popular Warhammer series. This book introduces the *Champions* *Secrets* and *Forms*, detailing their functions and describing their abilities, powers and restrictions and so on. Extensive army lists for the *Champions* forces and their enemies are included, making the book of particular interest for players used to the Warhammer 40,000 fantasy battle rules. There's also a figure painting guide to bring the characters to life. The *Secrets of Champions* is, like the rules book, lavishly illustrated with hundreds of stunning colours. Every page is packed with goodness.

For August 1991's *Secrets of Champions* comes the long-awaited *Champions* boxed set. Though a little pricey at £49.95, this supplement is full of detail that will delight anyone who's already visited King Country's fantasy world. Describing the history, geography and culture of *Champions*, this pack provides a wonderful chance to adventure in a fantastically detailed fantasy world as it prepares for its cataclysmic conflict.



GETTING IT ALL TOGETHER

Amiga users go musical too in this month's report on the latest software sounds. Jon Bates examines yet another sequencer for ST and Amiga, and an ST composing package from New York. Marshall M. Rosenblatt listens to the goodies of a MIDI gathering.

MidiSoft Studio: Advanced Edition

Yes, it's yet another new sequencing program that's come out in the States, and shortly it'll be over here. But what has MidiSoft Studio: Advanced Edition got over the others? Well, obviously the formula to be applied is "price versus features," and as a medium-priced package it comes out of this quite well.

MidiSoft Studio: Advanced Edition is a 16-track sequencer that uses the MIDI ports on the ST only. It says the because of this it has become the trend to have "separate" MIDI channels — that is, a parallel set or sets of all 16 channels available on MIDI interface. Essentially it follows the trend and tested real-time recording ideas, though it does have a reasonable step-time recording feature.

The main screen display has the track list/directory list to the left-hand half. It copies with 12 tracks on display at a time, and you can scroll through them either single or in groups of a dozen at a time. (And 12 goes inside just 5 times, so you'll need that single track scroll mode . . .) Across the top of the track display are the destinations that apply to that track.

Comments—that's where you write your own notes about the track, below the pan bar set to RECORD, MIX, or SOLO/CLIP. Then you have the MIDI channel number assigned to it, the volume change number it is set to (the notes on the synthesizer or whatever), the volume level and the octave. Pretty comprehensive, and all very easily accessible by clicking with the mouse, so that you can alter the settings even when running a record mode. In running, the assignable keys of the left mouse button decreasing values and the right button increasing them.

On the right-hand side of the screen

is more information regarding the tempo, bar numbers, whether or not the metronome is audible, etc. And it is usually in this area that the step-time windows appear.

The look-up of the screens has the by now obligatory "bussable features." That is, pan, reverb, stereo, narrowness, mute and solo. A pair of flashing squares indicate whether any MIDI data is being received and sent — this signal can be turned on and off, and the default is on.

The features on the drop-down menus are fairly comprehensive. One that caught my attention was the ability to format a disk while the program is running. Having more than once been in the situation where you have loads of music on the program, the little window appears that says "Disk Full," and you can't find a formatted disk anywhere. I think this feature should be put into the statutes of all programmers everywhere.

Mouse on steroids?

I also quite like the next screen option; once I got used to this, it made the ordinary (IBM) mouse seem like a banan-molden-garlic compared with its steroid-enhanced offspring. Plot a specifically musical feature, this, but nevertheless it makes for a comfortable working environment.

MIDI data can be filtered in terms of problems associated and afterward, auto record and quantize on records, and you can save the current screen set-up — though I would have thought this should be a default rather than an option.

MidiSoft Studio: Advanced Edition can cut and paste tracks and parts of tracks with consummate ease, using the vertical selected for treatment a "region." Tracks themselves can be merged, rechannelled, copied and shifted forward or back and the regions can be subject to insert/delete, paste, erase, transpose, quantize, and altering the scale values.

That last is quite a smart feature, as

it will alter the attack velocity by a percentage value, which is a little easier than the usual method of scaling from 0 to 127.

Each region is defined by the bar, beat number and the divisions of a beat which they insist on calling "ticks," a term which I find somewhat idiotic but several software houses seem to favour.

Then there's editing. No graphic displays here, but rather a list of the events as they happen overlaid down the left-hand side of the screen. Scrolling through them causes each event, be it note, pitchbend or program change etc., to happen. Any event selected by special attention is placed out and the information displayed above the window, making it easier to alter details.

You can also play the selected track with the highlight bar runs through the events, making it quite easy to follow things as they occur. Though I'm very used to working on both graphics and notational editing, I didn't find this too much of a pain to get to grips with, and if you go wrong you can always cancel your editing and return to the previous unedited state. The track events can be printed out if you wish to study them further.

But the quantize page is quite basic in its approach. Two options called QUANTIZE UNIFORM and QUANTIZE NON-UNIFORM are another. These, think, are the program's terms for note-on quantize and note-length quantize. Though the actual way of quantizing is easy — just tick through the note values — it's fairly limited in that for a few routines more you could have the options of based note values (as used for piano mechanics), a channel feature that allows a certain percentage of notes to quantize the track, and quantization of the velocity and aftertouch.

I know that the time of development costs has to be taken somewhere, but since the editing features are very comprehensive the quantize features

which are used by synthesizer writers probably more than any other, should evolve as rich in their variety.

In conclusion, *Studio Advanced Edition* has quite a lot going for it at £55, apart from the rather scant, though easy to use, quantisation features. I found it could get along with it rather well and it's certainly competing well in the crowded field.

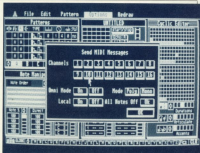
Microsoft Studio Advanced Edition is available from Protonics, 20 Dorset Square.

M

Ever fancied yourself as a creator of endless, timeless, shifting patterns of sound? We your man Jean-Michel Jarré in the privacy of your bedroom, thanks to a program called *M*. It's an absolute boon for old (and new) hippie types who are heavily into the concept of repeating patterns that still sound endlessly and change. And though this might all sound like mystic and wonderful cosmological rubbish — in fact, the program is a very well-organised, well-presented and clearly worked-out 'interactive composing tool', to quote from the manual.

The nice thing about it is that even an absolute musical illiterate can come up with something that sounds like something (just for a few Age record...).

But *M* works like no other program I have seen. The basic principle that you enter notes, either in real or stop time. These are held within the program and can then be subject to any degree of random playing back, governed by various screen areas.

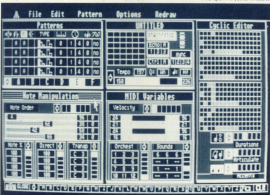


For that Philip Glass effect, outputting *M* music as MIDI data

Let's say you start off with those notes picked at random. Now these can be subject to speed variation — either in big steps or by altering the tempo. But that's only the start, because you can set parameters within which you can vary the speed

manually in an active area of the screen.

The program is now displaying your three notes like mad. So let's alter the order that they play back in. Fairly basic, you might think — but not with this program. For you can choose to



have them in degrees of randomness: the percentage of notes as you played them, the percentage of notes played backwards, and the percentage of notes that are actually allowed through.

Get the picture? Well, if you don't, the program certainly will, because across the bottom of the screen is the "snapshot" mode complete with a camera icon. This, coupled with the alpha keys, lets you "photograph" any screen setting you may happen to like.

And you manipulate the playback as it's occurring, as you have the results straight away.

Three-note wonder

Still playing with our three random notes, you move over to the "logic editor." This selection of grids (the program seems to have lots of grids after you've got just five) lets three notes will be typed, and just how the duration of those notes can be altered.

It will also "articulate," which in effect means phrasing some of the notes together, the logic also being that the more of the grid you fill in the more it manipulates the note stream.

And *MidiSoft* runs three dimensions if you have a synth or instrument that is velocity-sensitive, as you can determine if it put in accents, also subject to some controlled randomness. Finally, if all else fails, transpose the

pattern and let the program do change the sound.

From this seemingly aimless selection of variations on a theme, something resembling an overall scheme emerges. From the three notes you can generate quite a wide variety of sounds, and build them into something resembling a composition.

Of course, *MidiSoft* is capable of recording a lot more than just three notes. In fact you can record a whole lot of patterns in different ways: step time, real time, and a special drum record mode. *MidiSoft* will also accept the standard MIDI files which many ordinary musicians download to — the musical equivalent of ASCII, the "language" word processors use to store their text files.

In practice, *Midi* is a program that requires a long time to get into, and I suspect you'll find it very hard to get bored — that is, unless you're into composing straight ahead material. Once you start with more than one pattern, it becomes a whole new ball game as the patterns interweave and overlap. In playback, by jumping from one "snapshot" to another, you can change the piece as you go along, and you can of course record a new pattern while your others are chugging along.

I found out that the best way was, in effect, to have some sort of constant pattern underneath everything while the others whizzed about over the top.



"MidiSoft Studio follows the tried and tested real-time recording idea — and comes out well"

for you might put in a bass pattern in real time in pattern number 1, step time chords over it for pattern 2, and then complete 3 and 4 with some fills and melodic phrases.

The results at first are an amazingly raw, but since the machine can't think for itself you begin to realize that control and finesse are needed to get some reasonable results, but the nice thing about *Midi* is that it is geared for the musician and nonmusician alike. And I am certain that drum-machine aficionados will enjoy the drum mode — starting with a basic pattern, and then evolving patterns over the top so that it resembles the Last Drumming Tribe of the Limpopo in concert.

It will be helpful, as I mentioned above, to have a velocity-sensitive synth, or even better a multitrack live module.

Though *Midi* may not lie in everybody's price range, if you feel daunted by a sequence as you feel at a loss for compositions in Ray Jams' *Thompson* (Rubber Records) or *Phap* (Glass style) just to mention Terry Riley and Steve Reich, this is a very worthwhile investment. Early versions of *Midi* had a few niggly mistakes owing to bugs and flaws, but I can report that none didn't crash once.

Midi is available for ST (£185), Amiga (£195) and Apple Macintosh (£225) from *MidiSoft*, 61 Hampton Street, London have 071 621 7334-6105.

BIG APPLE SOUNDS

Exciting events happen all the time from intense funk, and the other week they were jammed almost back to back. The week the appearance of *Super Junior* (MCA Records) the other was the opening of the MCA (RPM) at the Sheraton Centre. We'll leave *Gorby* to *Four* (Street), but let's take a look through some of the most interesting sites of the musical enterprise.

Keyboard consoles are the mainstay of performance and since the 1980s is *Gorby's* MCA, which has been changed sound, and the intense sequence. All digital 16-bit processing puts more power in your hands than ever before — by and a stereo mode in a binary output effect — with amazing system and clarity. Plug in memory cartridges for added effects, or add the 12 analogue-driving MCA recorder to digitally interface every note you play.

Enter's *Super Junior* takes more like an open space sequence than a MCA instrument. Its preset tones and a high fidelity speaker make this one portable and — but plug it into a synthesizer and unleash untold sounds. A performance control lets you play and hear notes, and you can choose to blow or cut to those preset sounds can be activated just by pressing the keys.

Finally get the note in with the MCA (MCA) instrument — it looks like a box between a piano and a Ste



16-bit keyboard with a built-in sequencer *Gorby's* MCA

Always light notes. The MCA features two "chord control" which respond to touch pressure, light and touch to notes, and a sensitive set of 14 keys. You can instantly switch between, even play two keys at once that's MCA for you.

And do check out *Yamaha's* 16-bit guitar (Jules of Jules) which is a fast, fast, using sensitivity control, and automatic touch-response system to determine which fret is being fingered. Both the guitar and MCA require a tone controller in synthesis without keyboard, and will interact with computer-driven software.

Latest software

Any of the built-in software comes with software companies show-

ing off their wares. Indeed let's do it back to one very powerful other week: it has graphic editing, tempo changes, and 60 tracks to play with.

Realtime (Intelligent Music) lets you perform music and change it on the fly with a built-in mixer. What else? Free about 250 simultaneous tracks, after multitracking, and full MIDI control.

Composer *Junior* (MCA) is a free tool again, using a multitrack with *Amplitude* (Intelligent Music) *Music* *Music*. This responds to music movements combined with keyboard controls to give a visual and real performance. Features include user-selectable MIDI channels, dual tempo controls, even the inclusion of the software multitracking 256-bit control such as *Amplitude* and *Amplitude*.

On the other side of the wall, *Super Junior's* SuperJunior is a powerful tool. Its long list of features include a 32-track sequence, 16 polyphonic voices of memory, extended and pitch placement on screen. *Amplitude* features and patterns that can be loaded and saved, visual systems including guitar frames, and the ability to make "real" MIDI data.

That other 16-bit machine won't let us either. *SuperJunior's* *SuperJunior* for the Amiga, and *Amplitude's* *Amplitude* (MCA) is making a great impact on the software floor, with its graphic orientation and patch editor capabilities.

There's no question that music is becoming more electronic, more computerized, but it still requires your creativity to become more than just a lot of data being together.

Marshall D. Marshall



At last, Apple MCA Music II from MCA Records

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Amplitude
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Dial the number and listen carefully to the three questions. Fill in your answers in the boxes provided and complete the tie-breaking sentence given to you over the phone.

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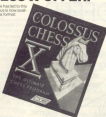
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12.99	10.44	2.55
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FIG. 2. A. 1990-1991, 1991-1992, 1992-1993, 1993-1994, 1994-1995, 1995-1996, 1996-1997, 1997-1998, 1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002-2003, 2003-2004, 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024, 2024-2025, 2025-2026, 2026-2027, 2027-2028, 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033, 2033-2034, 2034-2035, 2035-2036, 2036-2037, 2037-2038, 2038-2039, 2039-2040, 2040-2041, 2041-2042, 2042-2043, 2043-2044, 2044-2045, 2045-2046, 2046-2047, 2047-2048, 2048-2049, 2049-2050, 2050-2051, 2051-2052, 2052-2053, 2053-2054, 2054-2055, 2055-2056, 2056-2057, 2057-2058, 2058-2059, 2059-2060, 2060-2061, 2061-2062, 2062-2063, 2063-2064, 2064-2065, 2065-2066, 2066-2067, 2067-2068, 2068-2069, 2069-2070, 2070-2071, 2071-2072, 2072-2073, 2073-2074, 2074-2075, 2075-2076, 2076-2077, 2077-2078, 2078-2079, 2079-2080, 2080-2081, 2081-2082, 2082-2083, 2083-2084, 2084-2085, 2085-2086, 2086-2087, 2087-2088, 2088-2089, 2089-2090, 2090-2091, 2091-2092, 2092-2093, 2093-2094, 2094-2095, 2095-2096, 2096-2097, 2097-2098, 2098-2099, 2099-2100, 2100-2101, 2101-2102, 2102-2103, 2103-2104, 2104-2105, 2105-2106, 2106-2107, 2107-2108, 2108-2109, 2109-2110, 2110-2111, 2111-2112, 2112-2113, 2113-2114, 2114-2115, 2115-2116, 2116-2117, 2117-2118, 2118-2119, 2119-2120, 2120-2121, 2121-2122, 2122-2123, 2123-2124, 2124-2125, 2125-2126, 2126-2127, 2127-2128, 2128-2129, 2129-2130, 2130-2131, 2131-2132, 2132-2133, 2133-2134, 2134-2135, 2135-2136, 2136-2137, 2137-2138, 2138-2139, 2139-2140, 2140-2141, 2141-2142, 2142-2143, 2143-2144, 2144-2145, 2145-2146, 2146-2147, 2147-2148, 2148-2149, 2149-2150, 2150-2151, 2151-2152, 2152-2153, 2153-2154, 2154-2155, 2155-2156, 2156-2157, 2157-2158, 2158-2159, 2159-2160, 2160-2161, 2161-2162, 2162-2163, 2163-2164, 2164-2165, 2165-2166, 2166-2167, 2167-2168, 2168-2169, 2169-2170, 2170-2171, 2171-2172, 2172-2173, 2173-2174, 2174-2175, 2175-2176, 2176-2177, 2177-2178, 2178-2179, 2179-2180, 2180-2181, 2181-2182, 2182-2183, 2183-2184, 2184-2185, 2185-2186, 2186-2187, 2187-2188, 2188-2189, 2189-2190, 2190-2191, 2191-2192, 2192-2193, 2193-2194, 2194-2195, 2195-2196, 2196-2197, 2197-2198, 2198-2199, 2199-2200, 2200-2201, 2201-2202, 2202-2203, 2203-2204, 2204-2205, 2205-2206, 2206-2207, 2207-2208, 2208-2209, 2209-2210, 2210-2211, 2211-2212, 2212-2213, 2213-2214, 2214-2215, 2215-2216, 2216-2217, 2217-2218, 2218-2219, 2219-2220, 2220-2221, 2221-2222, 2222-2223, 2223-2224, 2224-2225, 2225-2226, 2226-2227, 2227-2228, 2228-2229, 2229-2230, 2230-2231, 2231-2232, 2232-2233, 2233-2234, 2234-2235, 2235-2236, 2236-2237, 2237-2238, 2238-2239, 2239-2240, 2240-2241, 2241-2242, 2242-2243, 2243-2244, 2244-2245, 2245-2246, 2246-2247, 2247-2248, 2248-2249, 2249-2250, 2250-2251, 2251-2252, 2252-2253, 2253-2254, 2254-2255, 2255-2256, 2256-2257, 2257-2258, 2258-2259, 2259-2260, 2260-2261, 2261-2262, 2262-2263, 2263-2264, 2264-2265, 2265-2266, 2266-2267, 2267-2268, 2268-2269, 2269-2270, 2270-2271, 2271-2272, 2272-2273, 2273-2274, 2274-2275, 2275-2276, 2276-2277, 2277-2278, 2278-2279, 2279-2280, 2280-2281, 2281-2282, 2282-2283, 2283-2284, 2284-2285, 2285-2286, 2286-2287, 2287-2288, 2288-2289, 2289-2290, 2290-2291, 2291-2292, 2292-2293, 2293-2294, 2294-2295, 2295-2296, 2296-2297, 2297-2298, 2298-2299, 2299-2300, 2300-2301, 2301-2302, 2302-2303, 2303-2304, 2304-2305, 2305-2306, 2306-2307, 2307-2308, 2308-2309, 2309-2310, 2310-2311, 2311-2312, 2312-2313, 2313-2314, 2314-2315, 2315-2316, 2316-2317, 2317-2318, 2318-2319, 2319-2320, 2320-2321, 2321-2322, 2322-2323, 2323-2324, 2324-2325, 2325-2326, 2326-2327, 2327-2328, 2328-2329, 2329-2330, 2330-2331, 2331-2332, 2332-2333, 2333-2334, 2334-2335, 2335-2336, 2336-2337, 2337-2338, 2338-2339, 2339-2340, 2340-2341, 2341-2342, 2342-2343, 2343-2344, 2344-2345, 2345-2346, 2346-2347, 2347-2348, 2348-2349, 2349-2350, 2350-2351, 2351-2352, 2352-2353, 2353-2354, 2354-2355, 2355-2356, 2356-2357, 2357-2358, 2358-2359, 2359-2360, 2360-2361, 2361-

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THE PRICE WAS WRONG

In April 1982 the new ZX Spectrum was launched at £175, with a three-month trial offer of £149. Today, the 128K +2 with built-in cassette drive is only £115.

In 1987, Sega launched the Master System in Britain at £109.95 and the light gun cost £144.95 - today it's an all-in deal at £79.95. The Sega Genesis, meanwhile, has dropped £30 since its UK release - it's now £109.95.

A PCB updated circuit board - the equivalent of software to run Data East's Dragon Ship on a coin-op costs £500... as the BT, Imagine's game costs just £19.95.

The ZX and Amiga have come up and down like yo-yos in recent years. Commodore's machine started at £399 and came down £100 to its present £199, while Atari's went up £150 to £499 from £350 and then came down £100 to £399 again, though you may get it with games (which are probably worth more than the £300 worth of £40).

Certainly buyers aren't - all the signs are that regardless of prices, the ZX is far ahead of the Amiga, and as we need to press, the top-top-selling 16-bit games were at £1.

A NOT SO TRIVIAL QUIZ

April 1980 was and truly was by the time I started this, and every other magazine's Christmas quiz either completed or thrown away in frustration, we've got the ultimate solution for those back-to-school boys. It's the 1000 1000 quiz, and you can find all the answers in the last 10 issues - that's 1000000 to 1000000.

Just put your answers into parentheses in the back of a sealed envelope (with your name and address, stamp) and send 'em to 1000 1000 1000, 1000, 1000 1000, Lullaby, Lullaby (P.O. Box 1000) at 1000 1000 1000. You'll even be invited to the contents page and on all the other bits of fun and stuff you'll get when you've completed the contents page, but we'll reserve the right to make the winner's name less funny.

On the prize? No, not another Amiga - but 1000 1000 1000 for the first five correct answers (each out of the 1000000) plus a one-year subscription to 1000 for the very first winner.

1 Which famous and notorious Spectrum software house specialised programming Nintendo games?

2 What software house launched in January 1980 with £1 million, promised games for 'the disorganising year' and wanted itself after an orange?

3 What American software house, represented in Britain by Microsoft, specialised in interactive movies?

4 Which software house sounding a bit like a German Spelling mode sent seven programmers (jumped at) a plane - raising money for the Royal National Lifeboat Association?

5 One international named a game after a famous piece of the teagging whisky, designed it like a man (the mouse) and used music by Jean-Michel Jarre (the like, out of this world). What game was it?

6 1000 published a computer from America (Big Power) a Plus. What was the previous version named?

7 People started to make cassette weren't the only music medium you could store programs on - and they weren't making a LP either. We covered the new technology as it started to really arrive. What is it called?

8 NEC, a giant Japanese company, produced a tiny console. It was never officially released in the UK, but we did let it out of it, and we've reviewed the great games. What is the console called?

9 1000 had the first news when America joined a new Sinclair machine. But it wasn't a Spectrum - what was it?

10 Microsoft launched a new label, promising games like Demolition and Pace Again Back. What's it called?

11 Activision changed their name. What did they call themselves?

12 Code Masters started producing fat-price games, then so did Alternative Software. What did Alternative call their first label too?

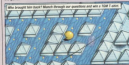
13 1000 went flying in America with the President of a well-known simulation software house. Name him.

14 Kato joined the arcade club. What were they already famous for?

15 The annual PC Show changed location to Harle Court. Where was it held the previous year (1987)?

16 What feature 1000 had pictures of its reprint men. Where did they attack?

17 Ocean released a Taito coin-op conversion, expected to be one of the biggest games of the Christmas season. The scenario was about rescuing hostages. Name the game.



18 Pac was back... in Pac-Mania, another coin-op conversion of the chubbly champion. But which company software house produced it?

19 Top another company promised to release a console, the first based on its own 16-bit architecture, which company was it?

20 1000 started on a Sunday. What date was it?

MOTION PICTURES

For this month's TGM Gallery we've chosen pictures featuring various forms of **vehicles and flight**, to fit in with the flight-simulator theme that runs through this issue from Jet Set to the F-19. And things move better with an Amiga, it seems — all were produced on that multicoloured monster.

As in the last Gallery, all the pictures were exhibited at the Autumn Computer Art Show sponsored by TGM.

■ Upgrading from an ST to an Amiga proved vital to Simon Williams of *Reflex* Games: — though "I could still use some more colours and a higher resolution", he says. But Simon started *Reflex* on a piece of paper, before transferring it to the Amiga's pixel ability. And the up in the picture was taken from an old ST picture of his.

Based on the film *Body Heat*, *Reflex* is impressively realistic in its detail and perspective (a special feature of DeluxePaint II) — and earned Simon a good third prize at the exhibition.



■ "Blue Train" Mark Kennedy of Birmingham, South Yorkshire, drew this picture titled "Bandy 'n' Bus" (pictured with DeluxePaint in low-resolution mode). It's a lot for you from the spectrum graphics band earlier produced for his mail-order game *Forgotten City*.

Bandy's the one on top — American Grand Prix star Randy Mamola — and the bus, of course, is the Suzuki bike he used to ride. We liked the use of colour, and the dramatic image.



DELUXE DEAL

By far the most popular package with our readers is DeluxePaint. And its DeluxePaint II, an upgraded version of the original DeluxePaint.

And it's also used widely by professionals as well from TV production to nightclub entertainment — one American club uses it to alter images of customers' faces and project them on a giant video screen.

Available for Amiga (D99.99) and PC-compatible (D99.99, D29.99 and D3.99 for trials). DeluxePaint II was released in 1988 (Amiga) and 1989 (PC).

If you're thinking of responding for art, remember we mentioned that it gives PC with DeluxePaint II could be even better than an Amiga.



■ Keeping it simple paid off for Phil Atkinson of Wrexham, Middlesex, whose *The Crown Sailing* took just half an hour. And it was only the second picture he'd done with DeluxePaint on his new Amiga.

Starting with a plain black background, he quickly drew the buildings as lines, shaded in the sky "hatched" them, created shades of brown in the picture below, introduced them into the 'sea' and added the yacht afterwards.

Phil earned a Special Mention at the exhibition.



■ If only simulations looked like this... It's no surprise to learn that Nick Haggard of Middlesbrough is "into graphics and designing spacecraft". He made this atmospheric picture, which really gives a sense of flying high above the clouds. Nick drew the plane and background separately in DeluxePaint II, pasted both into one to *Proton Paint* (from Microtations) and merged them there. It's easy when you know how.



BACK BYTES

■ Each company has a ready-made standard for connecting its own products with its own software. Software engineers on these systems have to learn the company's own language to make their programs work. This makes it difficult for a company to change its language without affecting all the software that has been written for it. This is why many companies have decided to use a standard language for their software. This standard language is called the C language.

When to use C language
C is a general-purpose programming language. It is used for many different types of programs. It is used for writing operating systems, compilers, and other system software. It is also used for writing application programs. C is a good choice for writing programs that need to be fast and efficient. It is also a good choice for writing programs that need to be portable. C is a good choice for writing programs that need to be easy to maintain.

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Toolbox

Products and news to make life bearable

Light wars and disk drives are on the menu as Jason Sheldon continues his report of November's Commodore Show.

Abstract

Chibi 20000 were showing off the Plasma Gun, a game accessory which shoots beams of light at the monster. The gun then registers the reflection off the water, and the computer calculates where

As the numbers only tell part of the story, with the gun - they are Capcom and 2D hit, both from Actionway. But Club Nintendo promises that nearly all future releases on N64 will be compatible with the iPhone Gun, as they've given the essential driver module in most software boxes.

First, Phases Four games are in production. One is *Alien*, a sort of platform game in the mould of *Invincible Maniac*; the others are similar to *Topo's First Steps*, but otherwise aimed at the world (nothing relevant to the country was to be, so how can things please

Class 640000: Route 1, Dickinson
Avenue, 2 Upper Trailington Road,
Kingston, Surrey KT1 6BT ☎ 0181
8771 6600

Abstract *in situ* polymerization of methyl methacrylate (MMA) was carried out in the presence of 1,2-dichloroethane (DCE) and 1,1,2,2-tetrachloroethane (TCE) as solvents. The polymerization was initiated by benzoyl peroxide (BPO) and the polymerization was monitored by ¹H NMR. The polymerization of MMA in DCE and TCE was faster than in MMA alone. The polymerization of MMA in DCE and TCE was also faster than in MMA alone. The polymerization of MMA in DCE and TCE was also faster than in MMA alone.

Chit 44000 also had the latest external disk drives with a digital read display. One use for this would be to locate errors on your disks: watch the display when your drive head starts to scratch your disk in places, and you can go back to the track later to reform or repair it. The display also looks nice, even in the dark.

5. *Chrysomelidae* (see 1. 1. 1979: 373).

[illegible]

That's why you also choose to have the latest hand-disk, available for the Amiga. It runs as the HD is entered in... and is so fast it has no stop-and-go. Available in 100MB, 120MB, 140MB and 160MB configurations, they come from £429.

© 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678,

Where Are We Working?

Comments were received about need of their plans. Two priorities: 1. Was the design should be available soon. It has one special feature: it automatically checks the front blocks on the disk, and checks to see if the code is standard or incorrect [10].

If the code is written by "others", it automatically creates the best blocks. Very good! But no wizard! Also provided is a BBC compiler for the Amiga, called amazingly enough *the* *Compiler* and yes, it is a new world! ... watch for issue 4, too, please.

Commonwealth Business Machines: Commonwealth House, The Switchback, (London Road), Manchester, Berkshire ☎ (06-29) 711000

Quick American Backburn

IBM Marketing head J. Capps, an Acopia backup utility which they claim is a lot faster than most others. An Eto it copies four disks at the same time, if four drives are connected; copies from RAID in seconds; copies ST, PC and As/4000 disks; and repairs two low-level diskettes.

A copy lands from Northbrook and takes you back there when you're finished.

SEO Marketing: Brooklyn Based
LL The Green Web Design
 Address: 107 14th St (DUMM)
 11201 NY

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We all know: All owners are rolling in dough, so when heron puppie will fly but then then Microsoft's Personal Finance Manager? The \$29.95 package, using a reimagined QM interface, helps you keep track of accounts and credit cards and make sense of those statements which have no relation to reality.

It can remind you of regular payments, make the overhead look astronomically manageable with pie charts and graphs, and

German PLN 478 ■ p072q

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

Make your IT image with a hard disk add-on from Power Computing. At \$1099 for 20MB or 1499 for 40MB, the hard disks allow you to store huge quantities of data right inside the computer — 40MB is the equivalent of 80 floppy disks. Keep your favorite utilities there, or even store your e-mail files on-line.

The Triangle Film Studio hard disks are also available for Amiga and Commodore of the same sizes.

Power Computing: 440 Stanley
Steen, Medical MDW 707 602-1400
2710000

Video 00 51

Shawco Productions offers a choice of two flexible 34 graphics units: 5000-RT, a 1000-Watt video graphics

which plugs into the ST and provides VCB (lead supplied).

storing video at the rate of more than 1.5 per second, the manufacturers claim, and stores them in Japan. Available in 100Mbps format is another line connecting them.

You can combine a new video frame with an existing picture using VHS-67's "gate window"/cut and paste between frames with pixel-perfect accuracy, and control colors and brightness from VHS-67's accompanying software.

The system also works with a video camera, so you can bring real-life pictures into your life.

Harborside Plaza, Livingston NJ 07033
 ☎ (908) 526-4444

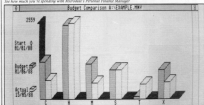
Regulation against piracy

Electricians isn't always a dream because modern electrical systems in the power supply can reach your computer – and destroy unpaired data. Now, Newark offer these new products to keep electrical appliances and servers at bay:

The **Master Filter Adaption** plug-in is the **smaller** - no wiring required - and is available for £15.10 (1-amp version) or £24.50 (2-amp version).

The 017-00 Two-Gang Filter Converter replaces the inside of standard double sockets, plug the converter in as normal, and you're guaranteed that the current won't exceed 15 amps.

And for multibodies, those
kinds of white plastic vehicles
are used in the most dramatic



when you've got monitors, printers and the modem, the Surge Clipper (\$21.49) takes the power supply to everything that's plugged in.

All are available from John DeMott, Apt. 1401, Evanston, Illinois 60120. (312) 855-7592. ■ (0092) 444/11.

Break into ST software

The Spectrum Software's Romantec tool is now available for the ST. For \$49.95, Romantec Robot's Multitasker ST gives you that famous "single-button" feature which stops a program running and allows you to change it, save it, print memory contents, print the screen, etc.

No ST memory is used because the Multitasker's program is all contained on a 64K, 90004 card inside the add-on, which plugs into the cartridge port.

To prevent the Multitasker being used for piracy, Romantec Robot has locked the system so that it must be plugged in to load programs it's saved.

Buyer beware: the Multitasker ST won't work with all software, so if you've got a specific use in mind, ask Romantec Robot first.

Disassembly required

As Romantec Robot never handles any ST products, they're disassembling a disassemblable add-on to the Multitasker, which will turn 48000 machine code into easier-to-use assembly language. It's available this month at \$14.95, but of course you need a Multitasker ST too.

Also on the cards is a real-time ST debugger, aka like Robot's (see above).

John DeMott, Robot's IT Department, Avenue 1, London W9W 8BB. ■ (011) 280-4470 (credit-card orders can be made 24 hours only). Multitasker postage and packing is £3 in the UK, £2 in continental Europe, £3 elsewhere.

Free 5.25-inch floppies...

CompuLink is collecting free 5 1/4-inch double-sided double-density disks every time you buy a box of tape.

Buy 50 of the floppies, and the incredible disks piled in a pack of three audio cassettes. Rack out, stock up on disks, and contact the CompuLink Hotline on 0585 612644 to claim your freebies.

... And free paper too!

CompuLink is also offering a free money pack worth over £100 if you buy certain Amstrad, Citicore or Panasonic printers from them. The pack includes 1,000 sheets of paper, an extra 500mm and a printer interface cable.

Printers in the offer are 9-pin and 24-pin dot-matrix models, starting at £119.95 (see Back Bytes, 12/28/84, for printer info). And-to-floppy is free, as it just could be a good deal... phone the



Now for the ST: Romantec Robot's Spectrum Multitasker

CompuLink Hotline on 0585 612644 for information and orders.

Teletext on the PC

PC-compatible can now receive the CIEFAX and ORACLE services courtesy with a BBC-authored add-on. Costing £195, the BBC Advanced Teletext Receiver works with all IBM, PC, XT, and AT compatibles including the Amstrad PC1642.

It plugs into an expansion slot and a USB serial; you tune into the correct CIEFAX and ORACLE frequencies using the supplied software, and then save them for quick access next time.

Any internet pages you choose can be saved - though you must write your own program to do this. And the receiver's Teletextware study allows you to receive any PC software transmitted by the BBC (educational, of course).

Introduced by General Information Systems, the BBC Advanced Teletext Receiver is available from Vector Services, 11 Denington Road, Buntingford, North-suffolkshire, Suffolk. North-suffolkshire, Suffolk.

General Information Systems are established by seven contributors. Clive Carver, so not surprisingly a similar system is also available for Amstrad's old BBC micro.)

Inside Joyce

If you're not content with word processing, this may be the book for you—Apex Associates have published PCW Machine Code, a guide to programming the 286 processor at the heart of Amstrad's PC range 6274, 6112, 7501.

At £15 including postage, the book covers all aspects of hardware control including screen, printer, and drive, as well as memory and maths functions. There's even a chapter on errors, which

we bet will become the best-seller.

Apex Associates (see page 128), Clifford Road, Broom's Barn, Buntingford (022) 458.



Putting it on paper

For Valentine's Day cards that personal touch with Electronic Arts' new DeluxePaint 2—it's all so quick and easy. Just load in your master image from EA's DeluxePaint 2 or SuperPaint. Resize it to suit your needs, then select anywhere and add your personal message. Choose a border to complete the design and you're ready to print.

In case you don't want a computer file or package, DeluxePaint 2 files include an image and palette version. Of course, unlike full advantage of the colour facilities you do need a colour printer...

DeluxePaint 2 (also costs £49.95, alternatively, you can buy DeluxePaint II (EX28000), also see Gallery on page 57 this issue) and the original DeluxePaint together for \$49.95.

The Vikings are coming to your PC

Maybe not in quite the same fashion as they did 1,000 years ago, but Scandinavian PC Systems do have three new packages for PC-, XT- and AT-compatible two-word processors and a handy MS-DOS menu system.

For \$39.95, *Alma* gives a clear, consistently oriented overview of what the hard disk contains. The user specifies the programs which are to appear on the main menu, and can then run them simply by selection—no more rummaging obscure .txt files. Of course, the menu can be changed at any time.

Or the menu can be set up so that each option leads to another sub-menu—by instance, you might want to choose from CLAS, SCANS and ARTISTS, or the appropriate submenus, and then select the program you wish. This system helps keep the screen simple.

Words and more programs Billed as a "vastly improved" version of *Sweden's* leading word processor, *Word Processing 3.0* includes more than 50 new or revised features. Standard features include search and replace, automatic justification, a variety of type styles, and hard hyphenation and spaces.

And other functions found in the new version include access to print files, text-to-speech expansion, better block manipulation commands, and automatic word reformatting. *Word Processing 3.0* costs \$29.95.

Scandinavian PC Systems's *Flow Drawing Programs* is the ideal way to supplement your word processor. Simple boxes, organizational charts and flow diagrams can be added to a text file to improve its presentation.

The program is transparently *8086* oriented, as the jargon goes, which means you load it with your word processor but won't be worried by it all you want to be. A user-specified key calls the *Flow Drawing Programs* into action, and can later be deactivated with ease. Priced at \$19.95, the *Flow Drawing Programs* fully comply with other Scandinavian PC Systems products—and, more importantly, with any monitor.

All three products are available on both 3.5-inch and 5.25-inch disk formats. Prices include VAT, postage and packing.

Scandinavian PC Systems (UK) Ltd, 100, Victoria (0103) 870 0000 (0171) 477 144.

Anyone for Archimedes art?

Artisan is the top-selling application package on the Archimedes, according to publishers *Claris* (Apple Suppliers). And now *Artisan* is released in succession, *Archimedes*, which works in the machine's Mode II and thus has 256 colours.

(The original *Archimedes* only a 16-colour palette.)

The new *Artisan* has been expanded to include graduated vertical, horizontal and circular fills. Therefore, use with the graduations and the shade direction are both controlled by the user. Customized fills are particularly useful for drawing realistically shaded objects in a matter of seconds.

The new menu has also been expanded, to include a fast designer which also includes a function to set the leading space between letters.

Other improvements include an expanded menu menu with the ability to set independent rectangular, square, circle and the main menu, and a rotation facility which scales and distorts a spin into any angle or irregular shape.

19 printer drivers provide the output for more and different printers such as the Epson 85 series, Hewlett-Packard laser printers, and compatibles.

Publication cost £149.95. *Claris* Micro Systems, 20 Middlebrook Road, Weybridge, Surrey TW20 7HT (0181) 465111.

Claris have also released an updated version of *Thinkit*, their 4.0 software hard-disk management system.

Called *Thinkit +*, it provides colour display in Mode II and includes new commands to more accurately find particular memory address, and will give you multiple parameters for all files starting with the same letter and created on the same date, and anything to make back-up easier.

The full price is £49.95, but existing *Thinkit* users can upgrade for £29.95.

Longer life for ribbons and edge connectors

Reinforcing printer ribbons and replacing ribbon cartridges are among the dirty common jobs. But did you know that ribbons can last up to three times their normal life span if treated with *Wet-400*?

Using a small paintbrush or sponge, just dab *Wet-400* onto the ribbons (don't soak it) and hey presto you've saved yourself pounds and pounds.

Often, the metal on edge connectors meets with the air, causing oxidation—often low-potential signals can be lost, resulting in the computer's performance.

To not stress the oxidation, just spray yourself the middle of replacing the edge connector. Then, edge connectors regularly with *Wet-400* applied to a cotton swab.

Wet-400, available in many high-street chemists, is also useful on stuck keyboard keys on any moving parts of the computer's mechanism. It's not greasy and doesn't melt anything—maintain it by dab it everything were to degradable!

What will they think of next?

MGA, that is—in last month's TGM we heard about MGA SoftCat's stargazing astrology software, and now here they are with products ranging from the really useful (printer mufflers, low-cost DTP) to the... do you really need a mouse clip?

MGA SoftCat and MGA Microsystems are both at Pear Tree, Appledore, Kent TN36 1AR ☎ (0133) 80571.

Swishhh, I'm using the phone

Many printers have been the cause of many an after battle. Swishhh—ingridients across the screen. Blood has been shed over the swamping world of a multi-toning chart books.

But a Kensington Printer Interface can reduce printer time by up to 91%. The Printer Muffler II (£79.95) the most standard average printers while the Printer Muffler 150 (£79.95) the most wide-carriage printers. Both come complete with a important help to keep noise in, and out!

Also available for £29.95 is the Printer Muffler Shield, which reduces both your printer and Printer Muffler II allow paper storage under lock.

World saved by gadget

That's the way you'd think it was, reading *Mega SoftCat's* triumph about the Trim Tag Margin Reduction System. Yes... just as you thought, it's a "handy trim" which clips into the line in front of your printer and gently pulls down on the paper, image frames will be in a K11.95.

Cheap PC DTP

MGA Microsystems are touting a new version of the low-cost DTP package *Newsletters* for PC-compatibles.

For *Newsletters* it's just a 100-page package and packing—very cheap for £69.95 they claim more flexible layout facilities, 96 lines, 100 pages of art, support for other 100 pages, ability to import text from *Lotus* 1-2-3 and PC *Amstrad*, and above all simplicity.

For more info on cheap DTP, see *Back Bytes*, TGM4013.

It's a job, go

For PC users with little first, they're also selling *The Amstrad* to train Spinmaker—no more is the American term for CV, and the £79.95 package apparently helps you summarize the story of your life for the potential employers. A word processor and 100,000 word spell-checker are included.

Taking the job

Also available for PC-compatibles

at £29.95 is *Sound Mailer* after a special DTP program after creating sounds, vibrations etc—could be useful if you run any kind of club. The two-disk package supports mono and colour output, comes complete with border designs and several fonts, and has a multi-stage facility you can create a list of names and automatically print out personalized awards the first of them.

A hole for mice

Claiming it's a "long-awaited computer mouse aid", MGA Microsystems are selling a mouse blocker which clips the mouse connector whenever you like when it's not in use—on the desk, perhaps, or the side of the mouse. Measuring 100mm by 10mm by 10mm, a constant mouse size, it's £4.95.

Bit-compatible

How do you find bit bookers and where up? Try a PC—5004. *SoftCat* are selling a series of three hard interactive technique manuals for £24.95 each, including, just the *Bookend*. They're like very simple advent calendars, you make decisions at key points in the story.

Not surprisingly, they're from America and come complete with emotional advertising about bonding the family together, etc.

Books 3, 4-inch and 1.25-inch disk versions are available, too. £14.95 is required.

The house beautiful

Prince Charles would be pleased—*Design Your Own House*, a three-program package from MGA Microsystems puts *Archimedes* through the hands of ordinary folk who know what they like and like what they know.

Costing £79.95 together for PC-compatibles and £87.95 each for Apple II, the title consists of *Architectural Design* (floor plans, side views), *Interior Design* (setting furniture) and *Landscaping Design*.

Architectural Design sounds the most useful, as it can draw stairs, towers and angles and rooms with wide array of 128-decoding colours elements—so you can create your own.

The world's leading brand for the real games competitor



Have you
got your hands
on one yet?

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NORTH HAMPSHIRE YO14 4LL, ENGLAND
TELEPHONE: 0262 801800/800411
FAX NO. 0262 880008

Please send me full details
Name
Address

(chip which outputs through the monitor). The 68001 32-bit chip allows interface devices a slice of the most sophisticated micro-chips at a \$-50 computer. **VIDEO** TV ports or submonitors. C24 has a composite video port. C280C/280 both have RGB ports for an 80-column display.

SOFTWARE FORMATS Tape or 5.25-inch disk (C280 only). Two external 5.25-inch drives are available at extra cost from Commodore - the C250 (for up to 1400) and the C250-1 (format to 2400). Disk costs very cheap but easily damaged.

PORTS RGB or C280C/280, composite video (C24), two parallel ports, serials, TV, expansion port, serial (standard), none port.

SOFTWARE The Commodore 64 is an old computer with years' worth of games and utilities, many imported from America. Many users, so most software stays to stay for some years past 250 into the C280C/280, allows it to run software written for other operating systems (as found on Amiga) **FORMATS** "Apple", POWER II, and CP/M2.0L and Spectrum - 5.

MISC-II

POWER II and its successors, MISC II and MISC II+, are not brand names of actual machines - MISC is a compatibility standard, or a set of rules for designing computers, developed by designers imported from the early 1980s.

The situation is a bit like that of PCs - computers, many manufacturers have produced MISC machines, but basically the same software runs on them all. The most famous MISC manufacturers are Sony.

PRICE Prices start from about £300 and rise according to model. The MISC II+ (see **SOFTWARE** below) is not available in Britain.

MEMORY Models range from 64K to 128K.

PROCESSOR 68010 (280, 250, 257, 260).

RESOLUTION Various models: 620x170, 640x200, 640x250 (graphics).

COLOR PALETTE 256 colors and shades. The MISC II+ has 16,384 colors.

SOUND 3-channel 8-bit/10-bit sound card which outputs through monitor/TV.

VIDEO TV port and SCART plug for RGB monitors.

POWER II AND POWER II+ Tapes, 600K (280) or 1.2-MB (260).

PC II+ series according to model but not available in Britain. Commodore parallel bus system ports. MISC expansion port, 280 plug to connect to interface modules and cartridge port.

SOFTWARE 4.42. Plenty of games and applications are available, but don't expect to find much in the high end.

The most well-known MISC machines in Britain are those, which in a word, software club - (280) 50/50.

MISC machines is generally compatible - that is, software written for the MISC will run on the MISC II and the MISC II+ (at its own cost).

The MISC machines have the same BASIC programming language (called MISC BASIC), providing enough and the same Microsoft operating system (MISC-DOS).

SINCLAIR ZX SPECTRUM

NOTE The Spectrum, from manufac-



tured by Sinclair, has appeared in many models: ZX 480, 480+, 1280+, -2, -3 and -5A. Only Sinclair from America available now.

PRICE £70 - £120 (with built-in tape deck) (280, -2) with built-in external disk drive £150. Other models available at varying prices.

MEMORY Many models from 48K - 128K (280) and 128K (280, -2) have 128K. **PROCESSOR** 68010 (280, 280, 480).

RESOLUTION 280 (or target) 256 colors, but only two colors can be used in any given full-screen field.

This allows several "color mode" graphics but not a lot of color.

COLOR PALETTE 256 colors, can be increased to 16.

SOUND 1280+, -2, -3 and -5 have 3-channel output via monitor or TV.

VIDEO 480, 480+, 1280+, -2 and -3 have RGB ports.

SOFTWARE Many tapes, early models had from ordinary cassette player (280, 480) - 280 had 128K tape deck, -2 128K, -3 128K, -5 128K.

Many people prefer to use tape because of disk-loading problems, and built-in compatible single-sided external disk drive can format disks to 128K each disk.

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biggest-selling home computer in the UK and price informed people at most 1000 games are released. The ZX Spectrum is the only one of its kind in the UK.

PRICE £70 - £120 (with built-in tape deck) (280, -2) with built-in external disk drive £150. Other models available at varying prices.

MEMORY Many models from 48K - 128K (280) and 128K (280, -2) have 128K. **PROCESSOR** 68010 (280, 280, 480).

RESOLUTION 280 (or target) 256 colors, but only two colors can be used in any given full-screen field.

This allows several "color mode" graphics but not a lot of color.

COLOR PALETTE 256 colors, can be increased to 16.

SOUND 1280+, -2, -3 and -5 have 3-channel output via monitor or TV.

VIDEO 480, 480+, 1280+, -2 and -3 have RGB ports.

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with 700K for 128, **MEMORY** 68K, 68K, Japanese manufacturers, are available. Sinclair's very large.

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PC ENGINE

PRICE £170 for console, power pack, signal and monitor interface (PCB or SCART), but in shops had available most.

This section is updated every month and new users every effort to ensure the information is accurate. Can be found if you're interested anything?

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\$6p EACH MIN 10
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1999—continued. Values are based on 1999 FIMF survey of software firms after final release years for FIMF survey. T-Tests are

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Account Card No.

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BEST BYTE DEPT TGM141 2 QUARRY GARDENS, TONBRIDGE, KENT TN9 2SD

INFORMATION DESK

ST programming, second-hand coin-ops and computer cartooning are on the desk as our Back Bytes staff tackle your toughest questions

ST book learnin'

I own an Atari ST and would like to learn about machine code. Could you please recommend a good book and an assembler?

Joe Harris, Glasgow

You're in luck, LEO, because there are several excellent and complete books on planned for Back Bytes in the near future - see TEGM007 for a guide to programming utilities and TEGM004 for the latest on functions, registers and files.

In the meantime, my Atari ST Mastering Language (Abraxas, £15.95 or £14.95 from-direct from) for a good introduction to machine code. Abraxas is an American company, but the book is available in the UK from several stores including Adamant, if I never discuss. Available. Laminator 0211 527 667/0786 124804.

Please do not say Abraxas falls away in Pull Mail, London, in search of this book, because they keep on getting bothered though they're not doing it to do with it - as we found out.

There are many other assemblers available, including some public-domain software: Top-asm, ASX11 and ASM86. Commercial programs include QDT's *Master Assembler*, available from most ST multi-order companies. CMT themselves are on (0914) 61-158.

Lagging it up

Having played the excellent Final Fantasy on the Amiga, I am interested in buying an arcade machine. How much would a second-hand machine cost and where can I get hold of one?

Chris Ellis, Colchester

Subscribing to Cite the the newspaper of the coin-op industry, is your first bet. They can be contacted at J. Kelly Lane, Clifton, Laminator 0211 614-1667.

When they according to how even the game's third-party version of the Amiga could get you back £2,500 while an older game like Star Wars will be under £500.

Cartoon crazy

I own an Amiga 2500 and DeluxePaint. I am interested in computer animation. Could you recommend any programs? The only one I've

found of is Deluxe Video by Electronic Arts. Richard Roberts, London

Deluxe Video is intended for video presentations but can certainly be used for full-motion (uncompressed) animation, and it's fully compatible with ST graphic packages including DeluxePaint. Credits, subtitles, captions and music scores can all be added to a presentation.

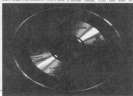
Black Enterprise produces a low-cost package called Ripper, which creates short animation sequences from images you've already drawn in an art package. It costs £44 but requires IBM-RAM - which your Amiga won't have unless in memory is swapped up to a cost of about £120. Black Enterprises are at 4 Hart Lane, Edinburg, Laminator 021 587 587 (011) 571-4162.

And then there's MovieMaker from Gold Disk, which Marshall G. Rosenfeld created in his TEGM004 feature in the Philadelphia Communication Store. Again, this needs 1MB. It should be available near from IBM Marketing, Brooklyn House, The Green, New Dragon. Address: 187 P/O, though no price was fixed but we heard.

Watch out for future articles in Back Bytes on computer-aided animation.

Will the s*** hit this fan?

What are the best games regarding starting a fanzine. Is it legal to review games without asking a software house's permission? What I need?



a license to sell my fanzine? What can I get my hands duplicated?

Joe Poulton, Devonport

The answer to your first question is yes and no, though if you wish to sell your fanzine at school or college it's a good idea to ask a teacher's permission first. Local print shops can duplicate your fanzine for you, but schools often offer a photocopying service to pupils at reduced rates.

Compact discussion

I am interested in buying a CD-ROM or CD-ROM player to look up to my design. However, my software becomes available on these formats.

Steven Ching, New Zealand

For a start, CDV and CD-ROM are quite different, so don't buy one if you want the other!

There is already a large selection of books and materials databases available on CD-ROM, though very few - if any - actual programs. A CD-ROM disk can hold up to 500MB of information, so it would take many many years of programming to fill up a single disk - and anyway, home computers don't have nearly enough memory to run a program that size.

For that, CD-ROM will become more and more important in information retrieval but more for the home since all multimedia information that is much cheaper and new programs are developed to handle that volume of memory. You'll probably see CD-ROM in the local library before it's on your desktop.

Compact disc-video (CDV) is the latest in individual technology. It combines a digital stereo soundtrack with an analogue picture to give the best possible reproduction of film or music, in a relatively cheap unit. It is not a storage medium for computers.

CDV discs come in three sizes - 5", 8" and 12-inch - so conventional music CDs can also be

played on a CDV player. Large discs store more information, up to 2 hours of sound and pictures on a 12-inch disc.

Philips produce two CDV players: the CDV-27 costs £499.95 and can play all discs, while the CDV-185 costs £349.95 and can only play 5-inch music discs, no pictures and 3-inch discs.

Whatever you do, don't mention the interface

I am interested in buying an Amiga 2500 for word processing. I have heard that some models are incompatible with some interfaces.

Jonathan Harris, Solihull

Amiga recently imported German models of the PCW012 to cope with an increase in UK demand. It seems they were aware of incompatibility problems between the German models and British interfaces.

Now, however, Amiga - ever willing to please - are giving away a game which makes German PCs compatible with British interfaces. If you think you've bought a German PCW, a free adapter is available from your nearest Amiga stockist.

Why oh why ...

I am thinking of upgrading from Citi to Amiga. But I have one question: why are Amiga games often just the same as ST games, though Citi games are often much better than the Spectrum version?

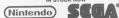
John Hughes, Devonport

Spectrum owners wouldn't agree with you ... Just the reason behind the ST and Amiga looks over the same vital procedure: a Monopack 4800B, and then the same machine sold. This makes transferring an ST game directly to the Amiga comparatively simple.

In contrast, the Spectrum and Citi use completely different chips and machine codes. Using STB on the Spectrum, MCMC 0102 on the Citi. This means the game has to be virtually rewritten anyway to go from Spectrum to Citi (or vice versa), so it might as well be changed.

If you're having problems with hardware, software or files in general, write to: ENTHUSIASTIC, TEGM, PO Box 76, Laminator, Shropshire ST8 1RH. We regret we cannot give personal replies or please the editorial staff - it'll be a case of goodbye and thanks for all the stamps.

Wallerstein's *Unsettled Grounds* (Ed. Victor Gollancz & Gollancz, Pp. —



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TRYHIDE SOFTWARE

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UNCLE MEL'S TRIVIA QUIZ

1) A weapon codenamed 'Valkyrie' has been illegally used in the UK by the security forces. What does it test?

degree. It was refined in 1975 under which circumstances?

2) Who is responsible for the current pop single 'The Hecker?' a) Crackers and Wynne, b) Cook, c) Harry Enfield?

3) In which Saturday film do the following characters appear Jonathan E., MCF, Zac?

4) Which of the following planets does not feature in Roger Taylor, Ringo, Limbo, Pogo Pop?

5) What have Codemasters, Alternatives and the House of Lords got in common?

6) According to the attack of programmes Operation Neptune, what happens to the land's services?

7) What is the maximum number of hours a day for working at a YOL as recommended by the United Nations International Labour Organisation?

8) In 1987, George Lucas made a 20 minute EP about his college

9) What is CD40?

10) Name the software title sponsored by the British Airport CAA from August last November to 'protect the youth of today'.

11) How much did PG sales drop up during the whole of 1988 in the UK? a) 100, b) 200, c) 300, d) 400, e) 500.

12) Name the best selling video of 1988. a) Cerebral Zombicide Double Discs from Lifford, b) Mithril the Cerebral Zombicide, c) Video the Cerebral Zombicide.

13) Unavailable these irremovable sports simulation enhancements, LAD-PROFESSOR, LAD-PROFESSOR, LAD-PROFESSOR, LAD-PROFESSOR.

14) What's the hand and covered in chocolate?

15) What have the following got in common? Dr Jekyll and Mr Hyde, Frankenstein, The Invisible Man, Jaws Rising.

16) Which software houses sound effects resembling French wine, is a drinking game, is extremely small and lacks of easy when?

17) What is remarkable about the Monogram representation of the P-10 in Project Stealth Fighter?

18) True or false, Mary Dash is based on a specific character in the software-50?

19) Again, again have brought The Monsters in the computer game. Name The Monsters, and give the address.

20) What have Rastard, Intention and Surreal Metal got in common?

ANSWERS

1) an electronic device that tests the security forces' ability to use the weapon.

2) The Hecker? is a current pop single by Crackers and Wynne.

3) Jonathan E., MCF, Zac are characters in the Saturday film 'The Hecker?'.

4) The planets featured in Roger Taylor, Ringo, Limbo, Pogo Pop are Jupiter, Saturn, Uranus, Neptune, Pluto, Mars, Venus, Earth, Moon, Mercury, and the Sun.

COMPETITION RESULTS

THE UNBELIEVABLE ELITE COMPETITION

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Haven't we heard it all before? Some killers from the Mary Winchester school comes along and gives us a lecture on how everything from abortion to the Vietnam corrupts young minds and whangs, before you know it it's cold showers and pro-life evangelism for all.

Well now, before the film comes back let me say that I am fully behind John Gillett, Managing Editor of *Surreyfield's* reference-film-maker magazine *Four*. Like John, I object to an increasingly totalitarian state taking away a fundamental freedom to watch what I want and, within reason, to do what I want.

But what does liberty end and subtle coercion begin? More to the point, in a society where ultimate motive is profit, what is going to be 'enough is enough'? And if we stop thinking about the issue of violence on computer screens and cinema screens, it won't simply go away—the chances are we'll just end up with another solid body like *Winchester's* National Viewers' and Listeners' Association.

But let's get one thing straight. People do not consume the death and destruction that comes out of the box or the computer monitor (well, one or two might but they would have reacted the same way to the penny dreadfuls of the Victorian era or the horror comics of the Fifties, and you can't legislate on the basis of a few unstable and suggestible people). There simply isn't any evidence to indicate that images of violence breed real violence.

The real danger is desensitisation. Continuous exposure to what has become called 'mainstream' (which is not an appropriate word, but has become an accepted one) on the TV or the computer screen promotes an attitude of moral confusion and moral numbness. This is a non-assertive moral state. It is a state of vacillancy, passivity and, ultimately, sloth.

This is the state which helps racism (the *Price is Right* to the top of the TV charts) in a state which makes it difficult to question the current norms.

Desensitised individuals do not become pathological killers, nor do they lose up gamers. However, we frequently call shoot-'em-ups 'mindless'—because that's exactly what they are.

The visitor to last year's PC Show was continuously bombarded with persistent images of violence. *Samurai II* and *Red Blue* blazed out all day from a multitude of monitors

(that's if you could find them over the wired walls of *Operation Wolf* machines)—where primary objective is to machine-gun everything in sight.

No pain, all gain

But what's so bad about these images? The point was eloquently made by Michael Burck in his BBC-TV documentary about *Overconfidence* from South Africa. Burck is criticised for his wilful, vicious theft of violence, but we never observe its end products. The inevitable numbness in these fantasies (and conservatism is perhaps more guilty than the crowd is that they show us excitement without pain, bullets without blood, and ultimately, death without loss).

Violence on the computer screen is just like violence in other forms of entertainment, but it falls into two camps. Graphical violence (it is CRL's drama, for instance) is self-explanatory and has been ruthlessly dealt with before. That most powerful, in many ways, is the subtle hostility present in many computer games—you could call it implied aggression.

The promotional bluffs that comes with *Micro-Force* games such as F-11 Strike Eagle and *Gladius* state: 'realistic form of constructive entertainment'. The realists haven't agreed with that, but I can't for the life of me comprehend the 'constructive'. Admittedly an Apache helicopter such as you might, you too really call something named to the teeth with Hellfire and HARM missiles and a whopping great chain gun a constructive machine?

What's more, though the on-screen graphics are still pretty crude compared with, say, a video screen, the accompanying manuals and maps make it quite clear just where you are flying and who you are blowing up. There aren't mere blips or spot invaders, they're representations of real people in the real world.

Chopper gamers in Vietnam often claimed that the only way they could bring themselves to attack the jungle below them was to dehumanise the unseen enemy in their own minds. They would pretend they were shooting deer—anything but mammals of the same species. This is a perfect example of voluntary desensitisation; pretend the violence doesn't matter.

But many people who witnessed the results of their screen-ended up snailish, which must tell us what violence really does when it's not discussed by technology.

If so, why not enjoy a little killing?
Jan Ruse believes games are numbing us to violence.

Very often that distancing device is the computer monitor. Not so long ago I witnessed Tom Clancy playing the computer version of his bestselling novel *Red Storm Rising*. The game is just like any other but it's all about World War III. Then my nerves settled here and there till you realise that this is probably exactly how the next world war would be fought—in behind the computer screen, missing armed forces about the parameters of a chessboard.

A peace of the action

No are games software houses looking us for war? Well, maybe not exactly but they sure aren't looking either peace. How many games with the object of peace or reconciliation.

PHOTO COURTESY OF THE VIDEO GAME INDUSTRY



And yet, if the scene seems normal, you're here playing games for long

can you name? A few, maybe. But how many of the opposite peace does? Thousands.

Of course, you could say that reconciliation-oriented games simply don't make for good games, that they're not as well fun to play. But is this really true? How many software houses are investing in genuinely alternative (and I don't mean *Don't Make Waves*) software which doesn't feature space wars or hero-soldier heroics?

And what about graphical violence on the computer screen? This wasn't an issue till recently because machines weren't sophisticated enough.

Everyone got sick of hearing CRL's Clement Chambers blabbing on about how *Jack the Ripper* was pushing forward the frontiers of computer software, because we all knew that it and its 18 certificate peers part of a cheap marketing ploy involving sticking a few hot pictures over some gloriously censored text. The offence was minimal, anyway, because you couldn't really make out what anything was supposed to be.

Now, however, we have the technology for even more violent entertainment. With faster processors and bigger monitors offering ever better graphics, and with careful *Star* and *Captain Power* clones just around the corner, I wonder where these images of destruction will all end, and what they will do to us, or suppose any state of mind would be better than comfortable numbness.

"We call some shoot-'em-ups mindless because that's exactly what they are"

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